

OBSTETRICS & GYNECOLOGIST

RAPID ACCESS GUIDE BOOK TO PASS PROMETRIC EXAM IN GULF COUNTRIES



RAPID ACCESS GUIDE

The complete Guide for the Prometric Exams in the Gulf Countries
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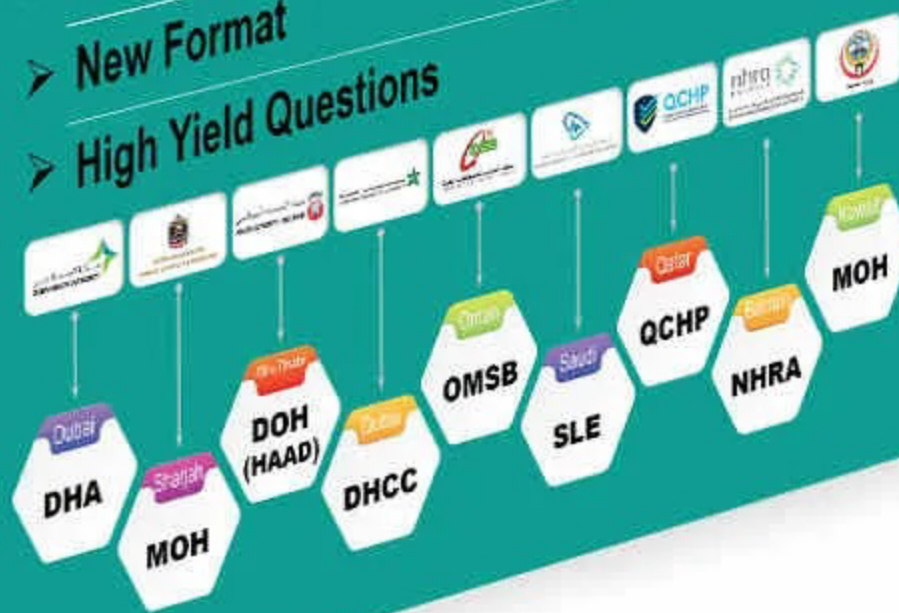
OBSTETRICS & GYNECOLOGY

1311 MCQS

10 PRACTICE TESTS

2023^{Edition}

- Updated Multiple Choice Questions
- Correct Answer with Explanation
- New Format
- High Yield Questions



OBSTETRICS & GYNECOLOGY

1311 free DrNote questions

1. A 25-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Candida vaginitis
- C. Chlamydia
- D. Trichomonas vaginalis

Answer: D

1. **Trichomonas vaginitis** is a sexually transmitted infection that classically presents with yellow-green, malodorous, thin, frothy, and occasionally purulent vaginal discharge.
2. It usually causes pruritus, dysuria, and dyspareunia, though it can be asymptomatic.
3. Wet mount microscopy would show highly motile pear-shaped organisms with 3-5 flagella.
4. Vaginal pH 5.0-6.0.
5. **Metronidazole** is the treatment of choice and should be prescribed to both the patient and the partner.

2. A woman comes to the clinic with a 3-day history of low-grade fever and abdominal pain. She is sexually active with one partner but uses condoms infrequently. Temperature is 38.1°C. On pelvic exam there is a mucopurulent exudate and bilateral cervical motion tenderness. A Gram stain of the exudate revealed N. Gonorrhea. Which of the following infection is usually coinfect with N. Gonorrhea?

- A. Bacterial vaginosis
- B. Chlamydia trachomatis
- C. H. ducreyi
- D. Herpes simplex

Answer: B

Dual therapy for gonococcus and chlamydia is recommended by the CDC because of the frequency of coinfection. The CDC-treatment recommendations include a single dose of IM ceftriaxone plus a single oral dose of azithromycin.

3. What is the most common cause of hypertension in young women?

- A. Oral contraceptives
- B. Pheochromocytoma
- C. Pregnancy
- D. Renal artery stenosis

Answer: A

Disorders associated with oral contraceptives

1. Risk for adenocarcinoma of breast and cervical squamous cell carcinoma
2. Risk for venous thromboembolism
3. Risk for folic acid deficiency
4. Risk for hypertension (Most common cause of hypertension in young women)
5. Risk for hepatic adenoma
6. Risk for intrahepatic cholestasis with jaundice
7. Risk for cholesterol gallstones

4. A patient presents in labor at term. Clinical pelvimetry is performed. She has an oval-shaped pelvis with the anteroposterior diameter at the pelvic inlet greater than the transverse diameter. The baby is occiput posterior. The patient most likely has what kind of pelvis?

- A. A gynecoid pelvis
- B. A platypelloid pelvis
- C. An android pelvis
- D. An anthropoid pelvis

Answer: D

By tradition, pelves are classified as belonging to one of four major groups. The gynecoid pelvis is the classic female pelvis with a posterior sagittal diameter of the inlet only slightly shorter than the anterior sagittal diameter. In the android pelvis, the posterior sagittal diameter at the inlet is much shorter than the anterior sagittal diameter, limiting the use of the posterior space by the fetal head. In the anthropoid pelvis, the anteroposterior (AP) diameter of the inlet is greater than the transverse diameter, resulting in an oval with large sacrosciatic notches and convergent side walls. The ischial spines are likely to be prominent. The platypelloid pelvis is flattened with a short AP and wide transverse diameter. Wide sacrosciatic notches are common. The pelves of most women do not fall into a pure type and are blends of one or more of the above types.

5. A pregnant 35-year-old patient is at highest risk for the concurrent development of which of the following malignancies?

- A. Breast
- B. Cervix
- C. Ovary
- D. Vagina

Answer: B

Cervical cancer is a more common gynecologic malignancy in pregnancy than ovarian or breast cancer attributed to the fact that it is a disease of younger women. Management of cervical intraepithelial lesions is complicated in pregnancy because of increased vascularity of the cervix and because of the concern that manipulation of and trauma to the cervix can compromise continuation of the pregnancy. A traditional cone biopsy is indicated only in the presence of apparent microinvasive disease on a colposcopically directed cervical biopsy. Otherwise, more limited procedures such as shallow cervical biopsies are more appropriate. If invasive cancer is diagnosed, the decision to treat immediately or wait until fetal viability depends in part on the gestational age at which the diagnosis is made, and the severity of the disorder. Survival is decreased for malignancies discovered later in pregnancy. Radiation therapy almost always results in spontaneous abortion, in part because the fetus is particularly radiosensitive. Chemotherapy is associated with higher than expected rates of fetal malformations consistent with the antimetabolite effects of agents used. Specific malformations depend on the agent used and the time in pregnancy at which the exposure occurs.

6. A 29-year-old G0 comes to your OB/GYN office complaining of symptoms of premenstrual syndrome (PMS). On taking a more detailed history, you learn that the patient suffers from emotional lability and depression for about 10 days prior to her menses. She reports that once she starts her period she feels back to normal. The patient also reports a long history of premenstrual fatigue, breast tenderness, and bloating. Her previous healthcare provider placed her on oral contraceptives to treat her PMS 6 months ago. She reports that the pills have alleviated all her PMS symptoms except for the depression and emotional symptoms. Which of the following is the best next step in the treatment of this patient's problem?

- A. Evening primrose oil
- B. Fluoxetine
- C. Progesterone supplements
- D. Spironolactone

Answer: B

The only medications that have been shown in randomized, double-blind, placebo-controlled trials to be consistently effective in treating the emotional symptoms of PMS are the selective serotonin reuptake inhibitors. Such antidepressants include fluoxetine, sertraline, and paroxetine. Some women can be effectively treated by limiting use of the medication to the luteal phase.

7. A 76-year-old woman presents for evaluation of urinary incontinence. She had a hysterectomy for fibroid tumors of the uterus at age 48. After complete evaluation, you determine that the patient has genuine stress urinary incontinence. On physical examination, she has a hypermobile urethra, but there is no cystocele or rectocele. There is no vaginal vault prolapse. Office cystometrics confirms genuine stress urinary incontinence. Which of the following surgical procedures should you recommend to this patient?

- A. A midurethral sling procedure
- B. Abdominal sacral colpopexy
- C. Anterior and posterior colporrhaphy
- D. Kelly plication

Answer: A

A midurethral sling procedure such as the transobturator tape or transvaginal tape placement would be the most appropriate surgical treatment for stress urinary incontinence in this patient. Kelly plication is an older procedure used to suspend the urethra and has a lower cure rate for stress incontinence than the Burch procedure. The Burch procedure suspends the bladder neck to Cooper ligament of the pubic bone using an abdominal approach. Anterior and posterior colporrhaphy are procedures used to correct cystoceles and rectoceles and are not indicated in this patient. Sacral colpopexy is a procedure to repair prolapse of the vagina by suspending the vaginal vault from the sacrum. The midurethral sling procedures are minimally invasive requiring only small vaginal and skin incisions. Additionally they may be performed as an outpatient procedure.

8. Which of the following drug is safe during pregnancy?

- A. Amikacin

- B. Erythromycin
- C. Tetracycline
- D. Warfarin

Answer: B

Penicillins, erythromycin, cephalosporins, and other commonly used antibiotics have not been found to be associated with an increased risk for birth defects.

<http://www.medscape.org/viewarticle/743614>

<http://www.nhs.uk/Conditions/Antibiotics-penicillins/Pages/Special-considerations.aspx>

9. Which of the following test we should do in woman with considered high risk of preeclampsia?

- A. 24-hour urine collection test
- B. Blood pressure measurement
- C. Urine test
- D. Weight measurement

Answer: A

Tests for women considered high-risk for preeclampsia Other tests may also be used to check for signs of preeclampsia, including: Blood tests Blood tests to check for problems such as HELLP syndrome and kidney damage. (Too much uric acid in the blood is often the earliest sign of preeclampsia.) Creatinine clearance test Creatinine clearance test to check kidney function. This requires both a blood sample and a 24-hour urine collection. 24-hour urine collection test to check protein in the urine. Routine prenatal tests Certain tests are given at each prenatal visit to check for preeclampsia. These include a: Blood pressure reading. Blood pressure is always monitored closely during pregnancy. Urine test Urine test to check for too much protein in the urine. This is a sign of kidney damage caused by preeclampsia. Weight measurement. Rapid weight gain can be a sign of preeclampsia.

10. A woman who had spontaneous rupture of membranes 23 hours ago comes to the hospital stating that the fluid that came out was clear. Her vital signs are temperature is 38.4 C and her pain score was 8 out of 10. On

palpation of the uterus when not in contraction, there is tenderness. Which of the following is the best recommendation for her?

- A. Do immediate CS
- B. Don't do anesthesia
- C. Give antibiotics while in labor
- D. Give antipyretic

Answer: C

Therapy for the mother and/or neonate with chorioamnionitis includes early delivery, supportive care, and antibiotic administration. Group B strep infection is more common in African Americans than in whites. There are also maternal risk factors that increase the chance of transmitting GBS to the newborn leading to early onset disease: Labor or membrane rupture before 37 weeks gestation Membrane rupture more than 18 hours before delivery Urinary tract infection with GBS during pregnancy Previous baby with GBS infection Fever during labor Positive culture for GBS colonization at 35-37 weeks

11. A 2-year-old boy is being followed for congenital cytomegalovirus (CMV) infection. He is deaf and developmentally delayed. The child's mother informs you that she has just become pregnant and is concerned that the new baby will be infected and may develop serious consequences. Which of the following is true?

- A. Termination of pregnancy is advised due to the high risk of complications.
- B. The mother has antibodies to CMV that are passed to the fetus.
- C. The mother's infection cannot become reactivated.
- D. There is a high likelihood that the new baby will develop similar complications.

Answer: B

Cytomegalovirus infection is the most common cause of congenital infection, occurring in 0.2% to 2.4% of all live births. Cytomegalic inclusion disease is a constellation of findings including hepatomegaly, splenomegaly, jaundice, petechiae, purpura, and microcephaly. In the United States, 70% to 90% of adult women have serologic evidence of a past infection with CMV. Symptomatic congenital disease usually occurs when a mother has a primary CMV infection in the first trimester of pregnancy. Many of these babies die, and those who survive are severely affected. In the event of reactivation of CMV infection during pregnancy, maternal IgG, passed transplacentally, protects the infant from serious infection. Although most infants infected during this secondary maternal infection are asymptomatic, about 10% of them eventually manifest hearing and neurologic problems. Some recommend keeping a child with congenital CMV infection away from susceptible pregnant (or about to become pregnant) women because CMV excretion can persist for months to years; at the very least, good hand-washing practices should be instituted. If infected shortly after birth, the younger sibling will probably be asymptomatic since he or she has maternal IgG in the circulation. CMV is primarily an occult infection. Of toddlers in day-care centers, 20% to 80% acquire CMV and shed it in saliva and urine for years. Diagnosis is made with isolation of the virus from urine, saliva, or other secretions, although several rapid tests also are available. A CMV vaccine is in trials, and recent literature has suggested some benefit with treatment of the fetus in known maternal infections.

12. A 24-year-old woman appears at 8 weeks of pregnancy and reveals a history of pulmonary embolism 7 years ago during her first pregnancy. She was treated with intravenous heparin followed by several months of oral warfarin (Coumadin) and has had no further evidence of thromboembolic disease for more than 6 years. Which of the following statements about her current condition is true?

- A. Doppler ultrasonography is not a useful technique to evaluate for deep-venous thrombosis in pregnancy.
- B. Having no evidence of disease for more than 5 years means that the risk of thromboembolism is not greater than normal.
- C. Impedance plethysmography is a useful study to evaluate for deep-venous thrombosis in pregnancy.
- D. The patient should be placed on low-dose heparin therapy throughout pregnancy and puerperium

Answer: D

Patients with a history of thromboembolic disease in pregnancy are at high risk of developing it in subsequent pregnancies. Impedance plethysmography has limited use in pregnancy due to a higher false-positive rate because of decreased venous return in the lower extremities during pregnancy. Compression ultra-sonography is the most-used first-line study to diagnose venous thrombosis. Pregnant patients with a history of venothromboembolism should be treated prophylactically with low-dose heparin therapy through the postpartum period as this is the time of highest risk of this disease.

13. A 27-year-old female presents to the emergency room with a temperature of 103°F, severe fatigue, weight loss, and joint pain. During the history and physical examination, the patient reports that she stopped taking her aspirin and corticosteroids to control her condition. A butterfly-type rash over her cheeks, sensitivity to light, and a heart murmur are apparent. The patient also reports a history of a progressively developing arthritis and glomerulonephritis. Laboratory tests further indicate anemia, leukopenia, and thrombocytopenia. This condition is best diagnosed by the presence of which of the following?

- A. Anti-ds DNA antibodies
- B. Anticentromere antibodies
- C. Antimitochondrial antibodies
- D. Antineutrophil antibodies

Answer: A

This clinical case represents a patient suffering with SLE. The diagnosis of SLE is best supported by detecting the presence of anti-ds DNA and anti-Smith (anti-Sm) antibodies. The presence of anti-ds DNA antibodies are very specific for SLE and represent a poor prognosis for disease. Antinuclear antibodies (ANA) can also be detected using fluorescent antibody tests. The other antibodies listed are related to other autoimmune diseases as follows: anticentromere antibodies in CREST syndrome and occasionally in systemic scleroderma, antimitochondrial antibodies in primary biliary cirrhosis, antineutrophil antibodies in antineutrophil cytoplasmic antibodies (ANCA)-associated vasculitis (systemic vasculitis), and anti-TSH receptor antibodies in Graves disease (hyperthyroidism).

14. A 45-year-old woman who had two normal pregnancies 15 and 18 years ago presents with the complaint of amenorrhea for 7 months. She expresses the desire to become pregnant again. After exclusion of pregnancy, which of the following tests is next indicated in the evaluation of this patient's amenorrhea?

- A. Endometrial biopsy
- B. FSH level
- C. Hysterosalpingogram
- D. Thyroid function tests

Answer: B

This patient has secondary amenorrhea, which rules out abnormalities associated with primary amenorrhea such as chromosomal abnormalities and congenital Müllerian abnormalities. The most common reason for amenorrhea in a woman of reproductive age is pregnancy, which should be evaluated first. Other possibilities include chronic endometritis or scarring of the endometrium (Asherman syndrome), hypothyroidism, and ovarian failure. The latter is the most likely diagnosis in a woman at this age. In addition, emotional stress, extreme weight loss, and adrenal cortisol insufficiency can bring about secondary amenorrhea. A hysterosalpingogram is part of an infertility workup that may demonstrate Asherman syndrome, but it is not indicated until premature ovarian failure has been excluded. Persistently elevated FSH levels (especially when accompanied by low serum estradiol levels) are diagnostic of ovarian failure.

15. A young female present with symptoms of amenorrhea for 5 months. Also, she has acne and hirsutism, voice deepening, clitoromegaly, temporal hair recession, and an increase in musculature. Ultrasound pelvic examination have found a mass in right ovary. Her serum testosterone is very high and LH and FSH is low. Which of the following is the most likely diagnosis in this girl?

- A. Choriocarcinoma
- B. Gonadoblastoma
- C. Sertoli-Leydig tumor
- D. Yolk-sac tumor

Answer: C

Sertoli–Leydig cell tumour is a group of tumours composed of variable proportions of Sertoli cells, Leydig cells, and in the case of intermediate and poorly differentiated neoplasms, primitive gonadal stroma and sometimes heterologous elements. Due to excess testosterone secreted by the tumour, one-third of female patients present with a recent history of progressive masculinization. Masculinization is preceded by anovulation, oligomenorrhoea, amenorrhoea and defeminization. Additional signs include acne and hirsutism, voice deepening, clitoromegaly, temporal hair recession, and an increase in musculature. Serum testosterone level is high.

16. A 26-year woman comes with abnormal Pap smear - ASCUS. Which of the following is the best next step for her?

- A. Biopsy
- B. Colposcopy
- C. Reassure
- D. Test for HPV

Answer: D

The American Cancer Society recommends that women between ages 21 and 29 should have a Pap test every 3 years (at ages 21, 24, and 27) to test for cervical cancer and pre-cancers. These women should not get the HPV test with the Pap test (co-testing) because HPV is so common in women these ages that it's not helpful to test for it. But HPV testing may be used in this age group after an abnormal Pap test result. The most common abnormal Pap test result seen is called ASC-US (your health care provider may say this as "ask us"). ASC-US cells usually are not pre-cancer, but they aren't quite normal either. If there are ASC-US cells in your Pap test result, an HPV test may be done to see if HPV is causing the cell changes. If HPV is found, you'll need more tests.

17. An 18-year-old girl comes to the clinic with complaints of amenorrhea for almost 2 consecutive months. She refuses the pelvic examination. Which of the following is the best next step for this patient?

- A. Brain MRI
- B. Prolactin

- C. TRH, TSH, T4, T3
- D. b-hCG urine test

Answer: D

This patient most likely has secondary amenorrhea. The best next step to find the cause of secondary amenorrhea is get a pregnancy test - b-hCG urine test. .Reference: First Aid USMLE Step 2 CK 2014, page 368

18. A 50-year-old woman is diagnosed with cervical cancer. Which lymph node group would be the first involved in metastatic spread of this disease beyond the cervix and uterus?

- A. Common iliac nodes
- B. External iliac nodes
- C. Paracervical nodes
- D. Sacral nodes

Answer: C

The main routes of spread of cervical cancer include vaginal mucosa, myometrium, paracervical lymphatics, and direct extension into the parametrium. The prevalence of lymph node disease correlates with the stage of malignancy. Primary node groups involved in the spread of cervical cancer include the paracervical, parametrial, obturator, hypogastric, external iliac, and sacral nodes, essentially in that order. Less commonly, there is involvement in the common iliac, inguinal, and para-aortic nodes. In stage I, the pelvic nodes are positive in approximately 15% of cases and the para-aortic nodes in 6%. In stage II, pelvic nodes are positive in 28% of cases and para-aortic nodes in 16%. In stage III, pelvic nodes are positive in 47% of cases and para-aortic nodes in 28%.

19. A 36-year-old G1P1 comes to see you for a routine postpartum examination 6 weeks after an uncomplicated vaginal delivery. She is currently nursing her baby without any major problems and wants to continue to do so for at least 9 months. She is ready to resume sexual activity and wants to know what her options are for birth control. She does not have any medical problems. She is a nonsmoker and is not taking any medications except for her prenatal vitamins. Which of the following methods may decrease her milk supply?

- A. Combination oral contraceptives

- B. Depo-Provera
- C. Intrauterine device
- D. Progestin only pill

Answer: D

Use of an IUD, barrier methods, and hormonal contraceptive agents containing only progestins are all appropriate methods of birth control for breast-feeding women. It is best for nursing mothers to avoid estrogen-containing contraceptives because estrogen preparations can inhibit lactation or decrease milk supply. Progestins are safe in a nursing mothers and for the baby but can also decrease her milk supply.

20. A woman has a painful labor. She asked for Epidural Analgesia. Which of the following laboratory test should be done before Epidural analgesia?

- A. Hb
- B. Platelets count
- C. RBC
- D. WBC

Answer: B

Epidural analgesia provides rapid pain relief in most cases. It is more effective than opioids and other common modalities of analgesia in childbirth. Epidurals during childbirth are the most commonly used anesthesia in this situation. The medication levels are very low to decrease the side effects to both mother and baby. When in labor the mother does not usually feel pain after an epidural but they do still feel the pressure. Women are able to bear down and push with contractions. Epidural clonidine has been extensively studied for management of analgesia during labor Absolute contraindications to neuraxial anesthesia: Woman's refusal Coagulopathy (check platelets count, PT, PTT) Infection at the site of epidural injection

21. Which of the following best describes irregular, prolonged, and heavy menstrual bleeding?

- A. Menometrorrhagia
- B. Menorrhagia
- C. Metrorrhagia
- D. Oligomenorrhea

Answer: A

Menometrorrhagia: Excessive uterine bleeding, both at the usual time of menstrual periods and at other irregular intervals.

Menometrorrhagia can be a sign of a number of different disorders including hormone imbalance, endometriosis, benign fibroid tumors in the uterus, and, less commonly, cancer. Women who have abnormal menstrual bleeding should always consult their physician to rule out these conditions. Anemia may result from the excessive uterine bleeding. Treatment depends on the cause. If there does not appear to be a dangerous cause, such as cancer, hormone supplementation, the therapeutic use of birth control pills to better control the menstrual cycle, or fibroid removal (myomectomy) may be recommended. Hysterectomy may sometimes be required.

22. A mother brings her 12-year-old daughter in to your office for consultation. She is concerned because most of the other girls in her daughter's class have already started their period. She thinks her daughter hasn't shown any evidence of going into puberty yet. Knowing the usual first sign of the onset of puberty, you should ask the mother which of the following questions?

- A. Does your daughter have any axillary or pubic hair?
- B. Has your daughter had any acne?
- C. Has your daughter started her growth spurt?
- D. Has your daughter started to develop breasts?

Answer: D

In the United States, the appearance of breast buds (thelarche) is usually the first sign of puberty, generally occurring between the ages of 9 and 11 years. This is subsequently followed by the appearance of pubic and axillary hair (adrenarche or pubarche), the adolescent growth spurt, and finally menarche. On average, the sequence of developmental changes requires a period of 4.5 years to complete, with a range of 1.5 to 6 years. The average ages of adrenarche/pubarche and menarche are 11.0 and 12.8 years, respectively. These events are considered to be delayed if thelarche has not occurred by the age of 13, adrenarche by the age of 14, or menarche by the age of 16. Girls with delayed sexual development should be fully evaluated for delayed puberty, including central, ovarian, systemic, or constitutional causes.

23. An 18-years-old girl comes with complaints of absence of menstrual cycle. Her secondary sexual characteristics are normal. Ultrasound examination has shown an absence of fallopian tubes, uterus, cervix, upper vagina. Which of the following is the most likely diagnosis in the girl?

- A. Androgen insensitivity syndrome
- B. Klinefelter syndrome
- C. Mullerian agenesis
- D. Turner syndrome

Answer: C

The patient most likely has Mullerian agenesis based on the ultrasound findings - an absence of fallopian tubes, uterus, cervix, upper vagina. The typical presentation is primary amenorrhea but a normal development of secondary sexual characters. Imperforate hymen or hematocolpos blood in the vagina that cannot escape, along with a bulging hymen. Requires surgical opening. There is all female internal genital organs. Complete androgen insensitivity - patients have normal breast development (aromatization of testosterone to estrogen) but are amenorrheic and lack of pubic hair.

24. A 15-year-old boy is bitten by an Ixodes tick while camping with his parents and presents 1 week later with fatigue, fever, headache, and a reddish rash over his trunk and extremities. Positive IgM antibody (1:200) to *Borrelia burgdorferi* is associated with which of the following?

- A. Acute Lyme disease
- B. Fifth disease
- C. Possible hepatitis B infection
- D. Possible subacute sclerosing panencephalitis (SSPE)
- E. Susceptibility to chicken pox

Answer: A

Borrelia burgdorferi, the causative agent of Lyme disease, elicits an acute antibody response. IgM appears within days to a few weeks following tick bite, and IgG appears a few weeks later. IgG persists; IgM does not. Cross-reactions occur with other treponemes.

Fifth disease is a viral exanthem commonly seen in children 8-to 12-year-old. Children are ill for a few days but recover without incident, usually within about 1 week. Unfortunately, if a pregnant female acquires the disease in the first trimester of pregnancy, the fetus is at risk. The causative agent is thought to be a parvovirus (Parvovirus B19). Fifth disease is also known as erythema infectiosum or slapped cheek syndrome. The four other maculopapular or macular rash diseases of childhood are measles, roseola, rubella, and scarlet fever.

Adults with no titer to varicella (VZV) are at risk for acquisition of chicken pox. If they are health care workers, there is additional risk of transmitting VZV to immunodeficient children. Antibodies to VZV are readily detected by both enzyme immunoassay (EIA) and fluorescent antibody (FA) techniques.

Delta agent is a recently discovered antigen associated with HBs Ag. Its presence usually correlates with HBs Ag chronic carriers who have chronic active hepatitis. EIA and RIA tests are available to detect antibodies to delta agent.

SSPE is thought to be caused by a measles-related virus present in the central nervous system. Most SSPE patients show elevated measles virus antibodies in serum and CSF. In patients with MS, lower CSF antibody titers have been observed, suggesting a possible etiologic role for measles virus in MS.

25. A 32-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the definitive test for diagnosing endometriosis?

- A. Laparoscopy
- B. Pap smear
- C. Quantitative hCG testing
- D. Ultrasound

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

26. A 40-year-old lady presented with bloody nipple discharge. Breast examination showed normal skin and no areolar fullness. There were no palpable axillary lymph nodes. Which of the following is the most likely diagnosis?

- A. Breast abscess
- B. Fibroadenoma
- C. Fibrocystic disease
- D. Galactocele
- E. Intraductal papilloma

Answer: E

Intraductal papillomas of the breast are benign lesions with an incidence of approximately 2-3% in humans. Two types of intraductal papillomas are generally distinguished. The central type develops near the nipple. They are usually solitary and often arise during the period nearing menopause. On the other hand, the peripheral type is often multiple papillomas arising at the peripheral breasts and are usually found in younger women. The peripheral-type are associated with a higher risk of malignancy. They are the most common cause of bloody nipple discharge in women age 20-40 and generally do not show up on mammography due to their small size. They may be detectable on ultrasound. A galactogram is the most definitive test but is somewhat invasive. The masses are often too small to be palpated or felt. A galactogram is, therefore, necessary to rule out the lesion.

27. A female patient has done tube ligation 4 years ago. She has complaints about mild spotting from her vagina and her last menstrual period was 6 weeks ago. During the physical examination, there is no blood in the vagina and there is a closed cervix. Which of the following is the best step for diagnosis?

- A. Computed tomography
- B. Dilation and curettage
- C. Laparoscopy
- D. Urine b-hCG

Answer: D

This woman most likely has the ectopic pregnancy. To exclude this diagnosis we need to do urinary b-hCG. Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock. With very rare exceptions the fetus is unable to survive. Risk factors for ectopic pregnancy include pelvic inflammatory disease, often due to Chlamydia infection, tobacco smoking, prior tubal surgery, a history of infertility, and the use of assisted reproductive technology and tubal ligation.

28. Which of the following is the treatment of choice for bacterial vaginosis?

- A. Azithromycin
- B. Doxycycline
- C. Fluconazole
- D. Metronidazole

Answer: D

Bacterial vaginosis (BV) is the most common cause of vaginal discharge in women of childbearing age.

Typical symptoms of BV include the following:

1. Vaginal odor (the most common, and often initial, symptom of BV); often recognized only after sexual intercourse
2. Mildly to moderately increased vaginal discharge
3. Vulvar irritation (less common)
4. Dysuria or dyspareunia (rare)

Risk factors that may predispose patients to BV include the following:

1. Recent antibiotic use
2. Decreased estrogen production of the host
3. Wearing an intrauterine device (IUD)
4. Douching
5. Sexual activity that could lead to transmission (eg, having a new sexual partner or a recent increase in the number of sexual partners)

General principles of treatment of BV include the following:

1. Antibiotics are the mainstay of therapy
2. BV occurring in pregnant women should be treated
3. The treatment of choice for bacterial vaginosis in both pregnant and non pregnant patients is oral metronidazole.
4. Vaginal metronidazole and clindamycin are alternatives.

29. Which of the following is the closest date of ovulation if the menstrual cycle lasts for 34 days?

- A. 12
- B. 16
- C. 21
- D. 30

Answer: C

To calculate the ovulation date should be beared in mind that no matter how long your entire cycle is, the luteal phase always lasts for 14 to 15 days. To find out the ovulation date should be removed these 14 days from the whole average cycle. For example, if a cycle is usually 34 days long, ovulation will take place on the twenties day ($34 - 14 = 20$).

30. A female has 4 intercourse in a week. She and her husband use condoms regularly. She uses douching regularly. She is smoking 1 pack per day. Which of the following is a risk factor for bacterial vaginosis?

- A. Douching
- B. Number of intercourses
- C. Smoking
- D. Using condoms

Answer: A

Bacterial vaginosis (BV) or nonspecific vaginitis is a disease of the vagina caused by excessive growth of bacteria. Common symptoms include increased vaginal discharge that often smells like fish. The discharge is usually white or gray in color. Burning with urination may occur. Healthy vaginal microbiota consists of species which neither cause symptoms or infections, nor negatively affect pregnancy. It is dominated mainly by *Lactobacillus* species. BV is defined by the disequilibrium in the vaginal microbiota, with a decline in the number of lactobacilli. While the infection involves a number of bacteria, it is believed that most infections start with *Gardnerella vaginalis* creating a biofilm, which allows other opportunistic bacteria to thrive. Risk factors include douching, new or multiple sex partners, antibiotics, and using an intrauterine device, among others.

31. A woman comes with the successfully treated pelvic inflammatory disease with antibiotics 2 years ago. She tries to get pregnant without success. A tubal factor infertility is diagnosed. Which of the following is the best next step in treating this woman?

- A. Clomiphene citrate
- B. Colposcopy
- C. Dilation&Curretage

D. Laparoscopy

Answer: D

If tubal factor infertility is suspected to be the cause of the infertility treatment begins with or without confirmation of infection because of complications that may result from delayed treatment. Appropriate treatment depends on the infectious agent and utilizes antibiotic therapy. Treating the sexual partner for possible STIs helps in treatment and prevents reinfection. Antibiotic administration affects the short or long-term major outcome of women with mild or moderate disease. For women with infections of mild to moderate severity, parenteral and oral therapies are prescribed . Typical antibiotics used are cefoxitin or cefotetan plus doxycycline, and clindamycin plus gentamicin. An alternative parenteral regimen is ampicillin/sulbactam plus doxycycline. Once infection has been eliminated, surgery may be successful in opening the lumen of the fallopian tubes to allow a successful pregnancy and birth

32. A 33-year old multigravida at 38 weeks gestation became disoriented, breathless and cyanotic after spontaneous vaginal delivery. The doctor noticed bleeding from the IV line site. Her blood pressure is 75/49 mm Hg, pulse is 120/min, and respirations are 27/min. Oxygen saturation is 70% on facemask.

Which of the following is the most likely diagnosis?

- A. Abruptio Placentae
- B. Amniotic fluid embolism
- C. Myocardial Infarction
- D. Pulmonary Embolism

Answer: B

1. Amniotic fluid embolism (AFE) is a rare obstetric emergency in which it is postulated that amniotic fluid, fetal cells, hair, or other debris enter the maternal circulation, causing cardiorespiratory collapse.
2. Amniotic fluid embolism may occur after amniocentesis or during labor.
3. Reported risk factors for development of AFE include multiparity, advanced maternal age, male fetus, and trauma.
4. Abrupt onset of hypoxia with respiratory failure, cardiogenic shock and seizures, in a patient who had undergone amniocentesis or delivered, is most likely due to amniotic fluid embolism.
5. Disseminated intravascular coagulation (DIC) is the most feared complication in patients with amniotic fluid embolism.

33. A 36-years-old female comes to the office with complaints of morning sickness and amenorrhea for 8 weeks. She uses condoms as contraceptive regularly. Which of the following is the most likely diagnosis in the woman?

- A. Hypothyroidism
- B. Pregnancy
- C. Premature ovarian failure
- D. Prolactinoma

Answer: B

This patient most likely is pregnant. The first investigation to confirm the diagnosis is beta HCG.

34. In a 28-year-old woman on the 6th day after complicated childbirth developed clinical and hematological signs of subacute DIC-syndrome with the presence of skin hemorrhages and uterine bleeding developed. The blood test are RBC-2.7 T / L, Hb-78 g / l, WBC-4.7 G / L, platelet count-88 G / L, blood coagulation time - 16 minutes, prothrombin time - 25 sec., fibrinogen-1,4 g / l. Which of the following is the best treatment for this woman?

- A. Aminocaproic acid
- B. Fresh frozen plasma
- C. Heparin
- D. Warfarin

Answer: B

Treatment of DIC is centered around treating the underlying condition. Transfusions of platelets or fresh frozen plasma can be considered in cases of significant bleeding, or those with a planned invasive procedure. The target goal of such transfusion depends on the clinical situation. Cryoprecipitate can be considered in those with a low fibrinogen level.

Treatment of thrombosis with anticoagulants such as heparin is rarely used due to the risk of bleeding.

35. A 32-year-old woman presents to the doctor with high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most likely organism which cause such symptoms?

- A. *Cl. perfringens*
- B. *E. coli*
- C. *N. Gonorrhea*
- D. *Str. pneumoniae*

Answer: B

Pyelonephritis 1. Infection of renal parenchyma most commonly caused by *Escherichia coli*; *Staphylococcus saprophyticus*, *Klebsiella*, and *Proteus* are less common pathogens; *Candida* is a potential cause in immunocompromised patients. 2. *Escherichia coli* accounts for more than 70% of cases. 3. Most commonly occurs as sequelae of ascending urinary tract infection (UTI). 4. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state. 5. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms. 6. Risk factors: urinary obstruction, immunocompromise, history of previous pyelonephritis, diabetes mellitus (DM), sexual intercourse >3 times/week, spermicide use. 7. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness. 8. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins. 9. Complications: increased risk of preterm labor and low birth weight in pregnant women

36. A 29-year-old G1P0 patient at 28 weeks gestational age presents to your office complaining of some shortness of breath that is more intense with exertion. She has no significant past medical history and is not on any medication. The patient denies any chest pain. She is concerned because she has always been very athletic and cannot maintain the same degree of exercise that she was accustomed to prior to becoming pregnant. On physical examination, her pulse is 72 beats per minute. Her blood pressure is 90/50 mm Hg. Cardiac examination is consistent with a grade I systolic ejection murmur. The lungs are clear to auscultation and percussion. Which of the following is the most appropriate next step to pursue in the workup of this patient?

- A. Perform an arterial blood gas
- B. Reassure the patient
- C. Refer the patient for a ventilation-perfusion scan to rule out a pulmonary embolism
- D. Refer the patient to a cardiologist

Answer: B

The patient's symptoms and physical examination are most consistent with the physiologic dyspnea, which is common in pregnancy. The increased awareness of breathing that pregnant women experience can occur as early as the end of the first trimester and is caused by an increase in lung tidal volume. The increase in minute ventilation that occurs during pregnancy may make patients feel as if they are hyperventilating and may also contribute to the feeling of dyspnea. The patient in this case needs to be reassured and counseled regarding these normal changes of pregnancy. She may have to modify her exercise regimen accordingly. There is no need to refer this patient to a cardiologist or to order an ECG. Systolic ejection murmurs are common findings in pregnant women and are caused by the normal increased blood flow across the aortic and pulmonic valves. The incidence of pulmonary embolism (PE) in pregnancy is about 1 in 6400 and in many of these cases there is clinical evidence of a DVT. The most common symptoms of a PE are dyspnea, chest pain, apprehension, cough, hemoptysis, and tachycardia. On physical examination, there may be an accentuated pulmonic closure sound, rales, or a friction rub. A strong suspicion for a PE should be followed up with a ventilation-perfusion scan. Large perfusion defects and ventilation mismatches would suggest the presence of a PE.

37. A 33-year-old woman with a history of Pelvic inflammatory disease comes to the office for evaluation of infertility. Which of the following tests is used to identify the structural abnormalities for this patient?

- A. Endometrial biopsy
- B. Hysterosalpingogram
- C. Hysteroscopy
- D. Loop Electrosurgical Excision Procedure (LEEP)

Answer: B

1. Infertility is usually defined as inability of a couple to conceive after 1 yr of unprotected intercourse.
2. Hysterosalpingography (HSG) is a radiographic diagnostic study of the uterus and fallopian tubes most commonly used in the evaluation of infertility.
3. Identifying risk factors for tubal disease (e.g., pelvic inflammatory disease) is important when evaluating patients with infertility.

Infertility can be caused by the following:

1. Sperm disorders ($\geq 35\%$)
2. Decreased ovarian reserve or ovulatory dysfunction (20%)
3. Tubal dysfunction and pelvic lesions (30%)
4. Abnormal cervical mucus ($\leq 5\%$)
5. Unidentified factors (10%)

Pelvic inflammatory disease (PID)

1. PID is infection of the upper female genital tract: the cervix, uterus, fallopian tubes, and ovaries; abscesses may occur.
2. Common symptoms and signs include lower abdominal pain, cervical discharge, and irregular vaginal bleeding.
3. Long-term complications include infertility, chronic pelvic pain, and ectopic pregnancy.
4. Diagnosis includes PCR of cervical specimens for *Neisseria gonorrhoeae* and *chlamydiae*, microscopic examination of cervical discharge (usually), and ultrasonography or laparoscopy (occasionally).
5. Treatment is with antibiotics.

38. Which of the following is true about adenomyosis?

- A. Defined as menstrual bleeding with abnormal duration, quantity, or schedule.
- B. Defined as prolonged or heavy menstruation, typically lasting longer than 7 days or exceeding 80 ml.

- C. The presence of endometrial glands and stroma outside of the uterine cavity.
- D. The presence of endometrial glands in the uterine muscle

Answer: D

1. **Adenomyosis** is defined as the presence of endometrial glands in the uterine muscle. This invasion can extend to the full thickness of the myometrium, or in some instances, to the serosa of the uterus.
2. Adenomyosis occurs most frequently in women above 40 and typically presents with severe dysmenorrhea and menorrhagia.
3. Examination reveals an enlarged and generally symmetrical uterus.
4. **Treatment:** Largely symptomatic relief. NSAIDs (first line) plus OCPs or progestins.
5. **Hysterectomy** is the only definitive treatment.

39. A 19-year-old woman presents for voluntary termination of pregnancy 8 weeks after her expected (missed) menses. She previously had regular menses every 28 days. Pregnancy is confirmed by β -human chorionic gonadotropin (β -hCG), and ultrasound confirms expected gestational age. Which of the following techniques for termination of pregnancy would be safe and effective in this patient at this time?

- A. Dilation and evacuation (D&E)
- B. Hypertonic saline infusion
- C. Misoprostol
- D. Suction dilation and curettage (D&C)

Answer: D

Surgical abortion is among the safest procedures in medicine, with a serious complication rate in the first trimester of less than 1%. In the first trimester at or after 49 days of gestation, suction dilation and curettage is the method of choice. Outpatient medical abortion is a safe and acceptable alternative to surgical abortion in select women with pregnancies less than 49 days of gestation. Three medications have been used: mifepristone (antiprogesterin), methotrexate (antimetabolite) and misoprostol (prostaglandin). Various schemes have been found to be effective. Usually mifepristone or methotrexate is initially administered followed by misoprostol. Intraamniotic injection of hypertonic saline is no longer considered appropriate because it has a much higher incidence of serious complications, including death, hyperosmolar crisis, cardiac failure, peritonitis, hemorrhage, and coagulation abnormalities. There are far better medicines available, and saline should no longer be used. Dilation and evacuation (D&E) is a surgical procedure similar in concept to a dilation and curettage (D&C). However, instead of curettage (scraping) to remove the products of conception, various forceps are placed into the uterine cavity to remove the products of conception. D&E is performed for termination of later pregnancies, generally those in the second trimester. Hysterotomy is a surgical procedure in which the uterus is opened transabdominally and the contents evacuated. It is a procedure done for termination of more advanced pregnancies when all other methods of termination are unsuccessful or contraindicated, or, for example, when retained products of conception cannot be expelled with medication or other mechanical means such as D&E.

40. A pregnant woman suddenly developed severe pain and edema of the ankle. Ultrasound examination confirms the diagnosis of deep venous thrombosis. Which of the following is the best treatment for her?

- A. Dabigatran
- B. Heparin
- C. Rivaroxaban
- D. Warfarin

Answer: B

Pregnancy and the puerperia are well-established risk factors for deep vein thrombosis (DVT) and pulmonary embolism (PE), which are collectively referred to as venous thromboembolic disease (VTE). Initial management of suspected VTE during pregnancy depends on the degree of clinical suspicion, whether anticoagulation is contraindicated, and whether PE, DVT or both are suspected. For pregnant women is recommend adjusted-dose subcutaneous low molecular weight heparin (SC LMWH), rather than adjusted-dose intravenous unfractionated heparin (IV UFH) or vitamin K antagonists. It is recommended against the use of oral direct thrombin inhibitors (eg, dabigatran) or anti-Xa inhibitors (eg, rivaroxaban, apixaban) in pregnant women. Anticoagulant therapy continues at least six weeks postpartum. The total duration of anticoagulant therapy of at least three to six months for women whose only risk factors for VTE were transient (eg, pregnancy). Patients with persistent risk factors for VTE may require longer therapy. Thrombolytic therapy should be reserved for pregnant or postpartum patients with life-threatening acute PE (ie, persistent and severe hypotension due to the PE).

(Uptodate)

41. A 21-year-old woman presents with leti lower quadrant pain. An anterior 7-cm firm adnexal mass is palpated. Ultrasound confirms a complex left adnexal mass with solid components that appears to contain a tooth. What percentage of these tumors are bilateral?

- A. 10%
- B. 2% to 3%
- C. 50%
- D. Less than 1%

Answer: A

Benign cystic teratomas (dermoids) are the most common germ cell tumors and account for about 20% to 25% of all ovarian neoplasms. They occur primarily during the reproductive years, but may also occur in postmenopausal women and in children. Dermoids are usually unilateral, but 10% are bilateral. Usually the tumors are asymptomatic, but they can cause severe pain if there is torsion or if the sebaceous material perforates, spills, and creates a reactive peritonitis.

42. A 22-year-old primigravida presents to your office for a routine OB visit at 34 weeks gestational age. She voices concern because she has noticed an increasing number of spider veins appearing on her face, upper chest, and arms. She is upset with the unsightly appearance of these veins and wants to know what you recommend to get rid of them. How should you counsel this patient?

- A. Tell her that the appearance of these blood vessels is a normal occurrence with pregnancy.
- B. Tell her that this is a condition which requires evaluation by a vascular surgeon.
- C. Tell her that you are concerned that she may have serious liver disease and order liver function tests.
- D. Tell her that you are going to refer her to a dermatologist for further workup and evaluation.

Answer: A

Vascular spiders, or angiomas, are common findings during pregnancy. They form as a result of the hyperestrogenism associated with normal pregnancies and are of no clinical significance. The presence of these angiomas does not require any additional workup or treatment, and they will resolve spontaneously after delivery. Reassurance to the patient is all that is required.

43. A woman presents to the doctor with high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most likely diagnosis?

- A. Acute pyelonephritis
- B. Gonorrhea
- C. Perinephric Abscess
- D. Urinary tract infections

Answer: A

Pyelonephritis

1. Infection of renal parenchyma most commonly caused by *Escherichia coli*; *Staphylococcus saprophyticus*, *Klebsiella*, and *Proteus* are less common pathogens; *Candida* is a potential cause in immunocompromised patients.
2. *Escherichia coli* accounts for more than 70% of cases.
3. Most commonly occurs as sequelae of ascending urinary tract infection (UTI).
4. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
5. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
6. Risk factors: urinary obstruction, immunocompromise, history of previous pyelonephritis, diabetes mellitus (DM), sexual intercourse >3 times/week, spermicide use
7. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
8. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
9. Complications: increased risk of preterm labor and low birth weight in pregnant women

44. A 32-year-old G5 delivers a stillborn fetus at 34 weeks. The placenta is noted to be much larger than normal. The fetus appeared hydropic and had petechiae over much of the skin. What is the most likely causative agent?

- A. Herpes simplex
- B. Parvovirus
- C. Rubella virus
- D. *T pallidum*

Answer: D

In the past, syphilis accounted for about one-third of all stillbirths. Transplacental infection can occur with any stage of syphilis, but the highest incidence of congenital infection occurs in women with primary or secondary disease. The fetal and neonatal effects include hepatosplenomegaly, edema, ascites, hydrops, petechiae or purpuric skin lesions, osteochondritis, lymphadenopathy, rhinitis, pneumonia, myocarditis, and nephrosis. The placenta is enlarged, sometimes weighing as much as the fetus. While parvovirus can cause stillbirth and fetal hydrops, it is not associated with skin lesions or placental hypertrophy.

45. A female comes for a regular check up. During the pelvic examination, there is a lesion in labia majora 2*2 cm². The biopsy was taken. Which of the following is not likely the histopathology of this biopsy?

- A. Adenocarcinoma
- B. Giant cell carcinoma
- C. Sarcoma
- D. Squamous cell carcinoma

Answer: D

Vaginal cancer is any type of cancer that forms in the tissues of the vagina. Primary vaginal cancer is rare in the general population of women and is usually a squamous-cell carcinoma. Metastases are more common. Vaginal cancer occurs more often in women over age 50, but can occur at any age, even in infancy. It often can be cured if found and treated in early stages. Surgery alone or surgery combined with pelvic radiation is typically used to treat vaginal cancer.

46. Which of the following is the most effective way to prevent cardiac anomaly in fetus during pregnancy?

- A. Genetic screen
- B. Regular exercise
- C. Smoking cessation
- D. Stopping eat red meat

Answer: C

The cause of congenital heart defect:

Environmental factors

Viral Infections

Medication

Alcohol

Smoking

Cocaine

Maternal chronic illnesses (diabetes, phenylketonuria (PKU). deficiency in folic acid)

Genetic factors (Heredity, Mutations, and Linked with other birth defects).

According to the U.S. National Library of Medicine and the National Institute of Health, Health Day News reported on November 14, 2006 that a new study indicates that women who smoke during early pregnancy are more likely to have a child with congenital heart defects. The study seems to indicate that women who smoked at some point in the month before conception through the end of the first trimester were 60% more likely to have babies with congenital heart defects. Exposure to second hand smoke also increases the risk of congenital heart defects.

Reference: <http://americanpregnancy.org/birth-defects/congenital-heart/>

47. A patient comes to the clinic with a 3-day history of low grade fever and abdominal pain. She is sexually active with one partner but uses condoms infrequently. Temperature is 38.1°C. On pelvic exam there is a mucopurulent exudate and bilateral cervical motion tenderness. A Gram stain of the exudate revealed N. Gonorrhea. Which of the following infection is usually coinfect with N. Gonorrhea?

- A. Calymmatobacterium granulomatis
- B. Chlamydia trachomatis
- C. Haemophilus ducreyi
- D. Treponema pallidum

Answer: B

Dual therapy for gonococcus and chlamydia is recommended by the CDC because of the frequency of coinfection. The CDC-treatment recommendations include a single dose of IM ceftriaxone plus a single oral dose of azithromycin.

48. A mother brings her 14-year-old daughter in to the office for consultation. The mother says her daughter should have started her period by now. She is also concerned that she is shorter than her friends. On physical examination, the girl is 4 ft 10 in tall. She shows evidence of breast development at Tanner stage 2. She has no axillary or pubic hair. You reassure the mother that her daughter seems to be developing normally. Educating the mother and daughter, your best advice is to tell them which of the following?

- A. The daughter will have her growth spurt, then pubic hair will develop, heralding the onset of menstruation
- B. The daughter will start her period when her breasts reach Tanner stage 5
- C. The daughter will start her period, then have her growth spurt
- D. The daughter's period should start within 1 to 2 years since she has just started developing breast buds

Answer: D

Significant emotional concerns develop when puberty is delayed. By definition, if breast development has not begun by age 13, delayed puberty should be suspected. Menarche usually follows about 1 to 2 years after the beginning of breast development; if menarche is delayed beyond age 16, delayed puberty should be investigated. Appropriate laboratory tests include circulating pituitary and steroid hormone levels, karyotypic analysis, and central nervous system (CNS) imaging when indicated. An FSH value greater than 40 mIU/mL defines hypergonadotropic hypogonadism as a cause of delayed pubertal maturation. Hypergonadotropic hypogonadism is seen in girls with gonadal dysgenesis, such as occurring with Turner syndrome. Since gonadal dysgenesis is such a common cause of absent pubertal development, hypergonadotropic hypogonadism is frequently—but not invariably—found in these patients.

49. How does smoking influence fetus during pregnancy?

- A. Intrauterine growth restriction
- B. Macrosomia
- C. Shoulder dystocia
- D. Small left colon syndrome

Answer: A

Smoking is associated with intrauterine growth restriction (small baby). Macrosomia, shoulder dystocia, and small left colon syndrome are associated with gestational diabetes.

50. Which of the following is period of developing postpartum cardiomyopathy in complicated pregnancy?

- A. Between the last 4 months of pregnancy and up to four months postpartum
- B. Between the last month of pregnancy and up to six months postpartum
- C. Between the last three months of pregnancy and up to 1 year postpartum
- D. Within 1 year postpartum

Answer: B

Peripartum cardiomyopathy (PPCM) is a form of dilated cardiomyopathy that is defined as a deterioration in cardiac function presenting typically between the last month of pregnancy and up to six months postpartum. As with other forms of dilated cardiomyopathy, PPCM involves systolic dysfunction of the heart with a decrease of the left ventricular ejection fraction (EF) with associated congestive heart failure and an increased risk of atrial and ventricular arrhythmias, thromboembolism (blockage of a blood vessel by a blood clot), and even sudden cardiac death.

51. A woman has severe pre-eclampsia. She was given MgSO₄ and hydralazine. Her respiratory rate is now 10/min and her deep tendon reflexes are absent. Which of the following is the best treatment for this woman?

- A. Atropine
- B. Calcium gluconate
- C. Methyldopa
- D. Naloxone

Answer: B

This woman has magnesium sulphate toxicity because of no deep tendon reflexes and respiratory depression. Calcium gluconate is the antidote for magnesium sulphate. Magnesium intoxication is manifested by a sharp drop in blood pressure and respiratory paralysis. The disappearance of the patellar reflex is a useful clinical sign to detect the onset of magnesium intoxication. It is important to keep an ampoule containing 1 g (10 mL of a 10% solution) calcium gluconate at the bedside to be used for intravenous administration as an antidote in cases of magnesium toxicity.

References:

<http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.1998.tb10084.x/pdf> <https://www.drugs.com/pro/magnesium-sulfate.html> <http://reference.medscape.com/drug/calcium-gluconate-344434>

52. A 30-year-old primigravida complains of headaches, restlessness, sweating, and tachycardia. She is 18 wk pregnant and her blood pressure is 200/120 mm Hg. Which of the following is the best next step?

- A. Abdominal CT scan
- B. Abdominal ultrasonogram
- C. Exploratory laparotomy
- D. Head CT scan
- E. Mesenteric angiography

Answer: B

Fetal distress refers to the presence of signs in a pregnant woman that suggest that the fetus may not be well. Generally, it is preferable to describe specific signs in lieu of declaring fetal distress that includes: Decreased movement felt by the mother Meconium in the amniotic fluid ("meconium stained fluid") Non-reassuring patterns seen on cardiotocography: increased or decreased fetal heart rate (tachycardia and bradycardia), especially during and after a contraction, decreased variability in the fetal heart rate, late decelerations. Almost all of this can be seen by ultrasound examination.

53. A 38-year-old woman presents with foul smelling vaginal discharge. Wet mount and KOH prep are performed demonstrating clue cells. What is the treatment of choice for this patient?

- A. Ceftriaxone
- B. Oral metronidazole
- C. Pencillin G
- D. Reassurance

Answer: B

1. Bacterial vaginosis is vaginitis due to a complex alteration of vaginal flora in which lactobacilli decrease and anaerobic pathogens overgrow. 2. Symptoms include a gray, thin, fishy-smelling vaginal discharge and itching. 3. Diagnosis is confirmed by testing vaginal secretions. 4. Treatment is usually with oral or topical metronidazole or topical clindamycin.

54. A 35-year-old married woman complained of fishy watery vaginal discharge. During the physical examination, there was found the punctate and papilliform appearance of the cervix. Which of the following is the most likely diagnosis in this woman?

- A. Chlamydia trachomatis
- B. Gardnerella vaginalis
- C. Klebsiella granulomatis
- D. Trichomonas vaginalis

Answer: D

Trichomoniasis is an infectious disease caused by the parasite *Trichomonas vaginalis*. Symptoms can include itching in the genital area, a bad smelling thin vaginal discharge, burning with urination, and pain with sex. Trichomoniasis can be cured with a single dose of prescription antibiotic medication (either metronidazole or tinidazole), pills which can be taken by mouth. To avoid getting reinfected, make sure that all of your sex partners get treated too, and wait to have sex again until all of your symptoms go away (about a week). A strawberry cervix is a finding upon examination where the cervix has a punctate and papilliform appearance. It is named because of the superficial appearance to a strawberry. As opposed to a more general inflammation of the cervix found in cervicitis, the strawberry cervix is considered to be selectively associated with *Trichomonas* infections.

55. A 43-year-old G1P0 who conceived via in vitro fertilization comes into the office for her routine OB visit at 38 weeks. She denies any problems since she was seen the week before. She reports good fetal movement and denies any leakage of fluid per vagina, vaginal bleeding, or regular uterine contractions. She reports that sometimes she feels crampy at the end of the day when she gets home from work, but this discomfort is alleviated with getting off her feet. The fundal height measurement is 36 cm; it measured 37 cm the week before. Her cervical examination is 2 cm dilated and the fetal head is engaged. Which of the following is the most appropriate next step in the management of this patient?

- A. Admit the patient for induction of labor for a diagnosis of fetal growth lag.
- B. Instruct the patient to return to the office in 1 week for her next routine visit.
- C. Order the patient to undergo a nonstress test.
- D. Send the patient for a sonogram to determine the amniotic fluid index.

Answer: B

The decrease in fundal height between visits can be explained by engagement of the fetal head, which is verified on vaginal examination with determination of the presenting part at 0 station. Engagement of the fetal head commonly occurs before labor in nulliparous patients. Therefore it is appropriate for the patient to return for another scheduled visit in a week. Intrauterine growth lag is unlikely because there will usually be a greater discrepancy (> 3 cm) between fundal. Therefore, the patient does not need to be induced. Since the patient has been reporting good fetal movement and is not post-term, there is no indication to do antepartum testing such as an NST. A fern test is not indicated since the patient has not reported leakage of fluid. An assessment of amniotic fluid to detect oligohydramnios is not indicated since the fundal height is appropriate for the patient's gestational age.

56. Which of the following is the most common sexually transmitted disease?

- A. Chlamydia
- B. Gonorrhea
- C. HPV
- D. HSV

Answer: C

The human papillomavirus (HPV) is the most common sexually transmitted disease in the United States

57. A 22-year-old primigravid woman at 32 weeks gestation is brought the doctor with a high fever, dysuria, flank pain, nausea, and vomiting. Which of the following are the most likely bacteria which cause such symptoms?

- A. E. coli
- B. Enterococci
- C. St. Aureus
- D. Str. Bovis

Answer: A

Pyelonephritis

1. Escherichia coli accounts for more than 70% of cases.
2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
4. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes).
7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

58. Which of the following is the most common cause of secondary dysmenorrhea?

- A. Adenomyosis
- B. Endometriosis
- C. Leiomyoma
- D. Ovarian cyst

Answer: B

1. **Dysmenorrhea** refers to the symptom of painful menstruation.
2. It can be divided into 2 broad categories: **primary** (occurring in the absence of pelvic pathology) and **secondary** (resulting from identifiable organic diseases).
3. **The most common cause of secondary dysmenorrhea is endometriosis.**
4. Pharmacotherapy is the most reliable and effective treatment for relieving dysmenorrhea. Treatment of secondary dysmenorrhea involves correction of the underlying organic cause.

The following may indicate secondary dysmenorrhea:

1. Dysmenorrhea beginning in the 20s or 30s, after previous relatively painless cycles
2. Heavy menstrual flow or irregular bleeding
3. Dysmenorrhea occurring during the first or second cycles after menarche
4. Pelvic abnormality with physical examination
5. Poor response to nonsteroidal anti-inflammatory drugs (NSAIDs) or oral contraceptives (OCs)
6. Infertility
7. Dyspareunia
8. Vaginal discharge

The following risk factors are associated with more severe episodes of dysmenorrhea:

1. Earlier age at menarche
2. Long menstrual periods
3. Heavy menstrual flow
4. Smoking
5. Positive family history

59. A pregnant woman has taken trimethoprim during pregnancy. Which of the following is possible congenital defects in a child?

- A. Cardiac abnormalities
- B. Fetal teeth and bones damage
- C. Gray syndrome syndrome
- D. Kernicterus

Answer: A

Some antibiotics should not be used during pregnancy, because of their effects on the fetus.

These include the following:

- Tetracyclines (adverse effects on fetal teeth and bones and congenital defects)
- Trimethoprim in the first trimester (facial defects and cardiac abnormalities)
- Chloramphenicol (gray syndrome)

Sulfonamides in the third trimester (hemolytic anemia in mothers with glucose-6-phosphate dehydrogenase [G6PD] deficiency, jaundice, and kernicterus)

Antibiotics generally considered safe during pregnancy: Amoxicillin, Ampicillin, Clindamycin, Erythromycin, Penicillin and Nitrofurantoin.

Source: <http://emedicine.medscape.com/article/452604-treatment>

60. A 32-year-old G1 at 10 weeks gestation presents for her routine OB visit. She is worried about her pregnancy because she has a history of insulin-dependent diabetes since the age of 18. Prior to becoming pregnant, her endocrinologist diagnosed her with microalbuminuria. She has had photocoagulation laser ablation of retinopathy in the past. Which diabetic complication is most likely to be worsened by pregnancy?

- A. Benign retinopathy
- B. Gastroparesis
- C. Nephropathy
- D. Proliferative retinopathy

Answer: D

The incidence of renal failure is almost 30% in type 1 diabetics and 4% to 20% in type 2 diabetics. Pregnancy has not been found to exacerbate or modify diabetic nephropathy. Diabetic neuropathy and gastroparesis may complicate some pregnancies, but pregnancy does not affect the overall disease process. Proliferative retinopathy is the one diabetic complication that pregnancy is thought to worsen.

61. You performed a forceps-assisted vaginal delivery on a 20-year-old G1 at 40 weeks for maternal exhaustion. The patient had pushed for 3 hours with an epidural for pain management. A second-degree episiotomy was cut to facilitate delivery. Eight hours after delivery, you are called to see the patient because she is unable to void and complains of severe pain. On examination you note a large fluctuant purple mass inside the vagina. What is the best management for this patient?

- A. Apply an ice pack to the perineum.
- B. Embolize the internal iliac artery.
- C. Incision and evacuation of the hematoma.
- D. Perform dilation and curettage to remove retained placenta.

Answer: C

The described mass is a vaginal hematoma. After delivery, the symptoms of severe pain and urinary retention should lead to a vaginal examination and the discovery of fluctuant tumor. Small vulvar hematomas discovered after leaving the delivery room may be treated expectantly. If severe pain occurs or if the hematoma continues to expand, the best treatment is incision and evacuation of the blood clots with ligation of the bleeding vessels if they can be identified. Often no sites of active bleeding are found, in this case the defect is closed and the vagina packed for 12 to 24 hours. Laparotomy may be indicated if the hematoma extends into the broad ligament. Embolization of the vaginal branch of the internal pudendal artery, uterine artery, and internal pudendal artery can be performed if bleeding is intractable.

62. You have an 11-day-old term infant in your office for a well-child visit. The mother notes that she received a letter that day from the State's Department of Health reporting that her child's newborn screen had come back abnormal, indicating possible galactosemia. Which of the following is the most appropriate management at this point?

- A. Discontinue breast-feeding and initiate soy formula feedings.
- B. Discontinue oral feeds and begin total parenteral nutrition.
- C. Refer to endocrinology for evaluation.
- D. Supplement her breast-feeding with a multivitamin.

Answer: A

All 50 states in the United States, as well as most developed countries, screen in the neonatal period for a variety of conditions, among them galactosemia. The condition is autosomal recessive (about 1:40,000 live births); if not identified on newborn screening, affected infants can present with jaundice, hepatomegaly, vomiting, hypoglycemia, convulsions, lethargy, irritability, feeding problems, poor weight gain, aminoaciduria, cataracts, liver cirrhosis/failure, and mental retardation. Early treatment is essential and consists of galactose avoidance by using soy or casein hydrolysate infant formula. Classic galactosemia is one of the few true contraindications to breast-feeding. With appropriate diet, many of the features listed can be avoided or reversed. However, affected children often have ovarian failure, reduced bone mineral density, and developmental delay.

63. Three days ago you delivered a 40-year-old G1P1 by cesarean section following arrest of descent after 2 hours of pushing. Labor was also significant for prolonged rupture of membranes. The patient had an epidural, which was removed the day following delivery. The nurse pages you to come to see the patient on the postpartum floor because she has a fever of 38.8°C (102°F) and is experiencing shaking chills. Her blood pressure is 120/70 mm Hg and her pulse is 120 beats per minute. She has been eating a regular diet without difficulty and had a normal bowel movement this morning. She is attempting to breast-feed, but says her milk has not come in yet. On physical examination, her breasts are mildly engorged and tender bilaterally. Her lungs are clear. Her abdomen is tender over the fundus, but no rebound is present. Her incision has some serous drainage at the right apex, but no erythema is noted. Her pelvic examination reveals uterine tenderness but no masses. Which of the following is the most likely diagnosis?

- A. Endometritis
- B. Pelvic abscess
- C. Septic pelvic thrombophlebitis
- D. Wound infection

Answer: A

Metritis, or infection of the uterus, is the most common infection that occurs after a cesarean section. A long labor and prolonged rupture of membranes are predisposing factors for metritis. In the presence of a pelvic abscess, usually signs of peritoneal irritation such as rebound tenderness, ileus, and decreased bowel sounds are present. Wound infections occur with an incidence of about 6% following cesarean deliveries. Fever usually begins on the fourth or fifth postoperative day, and erythema around the incision along with pus drainage is often present. In the case of a wound infection, first-line treatment involves draining the incision. Atelectasis can be a cause of postoperative fever, but the fever occurs generally in the first 24 hours. In addition, on physical examination, atelectasis is generally accompanied by decreased breath sounds at the lung bases on auscultation. It more commonly occurs in women who have had general anesthesia, not an epidural like the patient described here. Septic pelvic thrombophlebitis occurs uncommonly as a sequela of pelvic infection. Venous stasis occurs in dilated pelvic veins; in the presence of bacteria, it can lead to septic thromboses. Diagnosis is usually made when persistent fever spikes occur after treatment for metritis. The patient usually has no uterine tenderness, and bowel function tends to be normal.

64. A 41-years-old pregnant woman at 37 weeks of pregnancy comes to the office. Her fetus is in a breech presentation. You successfully did the external cephalic version of a fetus and ordered checkup in a 1 week. After 1 week you have found that the fetus returned to the previous position. Which of the following is a contraindication from doing another external cephalic version?

- A. A and C
- B. Breech presentation
- C. Failed the first attempt
- D. Gestational Age 40 weeks
- E. Oligohydramnios

Answer: A

Explanation There are two types of contraindications : Relative contraindication means that caution should be used when two drugs or procedures are used together. (It is acceptable to do so if the benefits outweigh the risk.) Absolute contraindication it means that event or substance could cause a life-threatening situation thus it should be avoided. The external cephalic version is a procedure in which the fetus is rotated from the breech to the cephalic presentation by manipulation through the mother's abdomen. ECV is indicated if a breech presentation is persistent after 37 weeks. If ECV fails, then do cesarean delivery. Absolute Contraindications 1. If a caesarean section is indicated, e.g. placenta previa, previous Classical Caesarean section. 2. Abnormal cardiotocography; fetal heart rate abnormalities 3. Ruptured membranes 4. Contracted pelvis 5. Fetal death 6. Placental abruption Relative contraindication 1. Small-for-gestational-age fetus with abnormal Doppler parameters; Fetal hypoxia 2. Pre-eclampsia with proteinuria; or Antepartum haemorrhage in the last week 3. Major fetal anomalies; Unstable lie; Multiple pregnancy 4. A restrictive nuchal cord, Hyper-extended head 5. Major uterine anomaly ; Scarred uterus 6. Oligohydramnios or hydramnios

65. A 38-years-old pregnant woman at 37 weeks of pregnancy occurred a premature rupture of membranes with clear fluids. She had a trial of an external cephalic version at 36 weeks of pregnancy. Her amniotic fluid index is 12 and now her fetus is in the lateral position. Which of the following is an indication for cesarean section?

- A. Amniotic Fluid index
- B. Failed first attempt
- C. Fetal position
- D. Premature rupture of membranes
- E. Repeated ECV

Answer: C

Maternal indications for cesarean delivery include the following:
Repeat cesarean delivery Obstructive lesions in the lower genital tract, including malignancies, large vulvovaginal condylomas, obstructive vaginal septa, and leiomyomas of the lower uterine segment that interfere with engagement of the fetal head Pelvic abnormalities that preclude engagement or interfere with descent of the fetal presentation in labor Certain cardiac conditions that preclude normal valsalva done by patients during a vaginal delivery Fetal indications for cesarean delivery include the following: Situations in which neonatal morbidity and mortality could be decreased by the prevention of trauma Malpresentations (eg, preterm breech presentations, non-frank breech term fetuses) Certain congenital malformations or skeletal disorders Infection Prolonged acidemia Indications for cesarean delivery that benefit the mother and the fetus include the following:
Abnormal placentation (eg, placenta previa, placenta accreta)
Abnormal labor due to cephalopelvic disproportion Situations in which labor is contraindicated

66. The patient complains of minor bloody discharge from the vagina, pain at the bottom of the abdomen. The last menstruation was 3.5 months ago. During the examination her pulse is 80 b/min, blood pressure -110/60 mm Hg, the temperature is 36.6 ° C. The abdomen is painful in the lower parts. The uterus is palpated which is tight, and painful. The pelvic examination showed a closed cervix. The ultrasonography find a normal fetal heartbeats. Which of the following is the most likely diagnosis?

- A. Complete miscarriage
- B. Incomplete miscarriage
- C. Missed miscarriage
- D. Threatened miscarriage

Answer: D

Athreatened miscarriage describes any bleeding during pregnancy, prior to viability, that has yet to be assessed.. At investigation it may be found that the fetus remains viable and the pregnancy continues without further problems.

67. Which is the following is helping to confirm diagnose ovarian cancer?

- A. Family history
- B. Histopathology
- C. Pelvic examination
- D. Transvaginal ultrasound
- E. Tumor marker

Answer: B

Diagnosis of ovarian cancer starts with a physical examination (including a pelvic examination), a blood test (for CA-125 and sometimes other markers), and transvaginal ultrasound. Sometimes a rectovaginal examination is used to help plan a surgery. The diagnosis must be confirmed with surgery to inspect the abdominal cavity, take biopsies (tissue samples for microscopic analysis), and look for cancer cells in the abdominal fluid. This helps to determine if an ovarian mass is benign or malignant

68. A pregnant 31-year-old woman asks about the possibility of the chromosomal abnormality in her future kid. At which age has the highest risk associated with chromosomal abnormality?

- A. >30 years
- B. >35 years
- C. >40 years
- D. >45 years

Answer: D

Advanced maternal age is widely recognized as increasing the risk for chromosomal abnormalities. And the greater the age of parents the bigger the possibility of chromosomal abnormalities. These are genetic problems that can cause health problems for the baby, including Down Syndrome, Tay-Sach's disease, cystic fibrosis and others. There is no cure for these conditions, however doctors may have a responsibility to timely diagnose genetic defects. In many states, parents have a right to terminate the pregnancy because of genetic defects, when detected early enough. A doctor who fails to give expectant parents that option may be responsible for the extraordinary medical care that the child will require over his or her lifetime. Lawsuits of that nature are known as wrongful birth cases. <https://www.birthinjuryjustice.org/wp-content/uploads/2012/04/Genetic-abnormalities.jpg>

69. A 28-year-old G2P2 presents to the hospital 2 weeks after vaginal delivery with the complaint of heavy vaginal bleeding that soaks a sanitary napkin every hour. Her pulse is 89 beats per minute, blood pressure 120/76 mm Hg, and temperature 37.1°C (98.9°F). Her abdomen is nontender and her fundus is located above the symphysis pubis. On pelvic examination, her vagina contained small blood clots and no active bleeding is noted from the cervix. Her uterus is about 12 to 14 weeks size and nontender. Her cervix is closed. An ultrasound reveals an 8-mm endometrial stripe. Her hemoglobin is 10.9, unchanged from the one at her vaginal delivery. β -hCG is negative. Which of the following potential treatments would be contraindicated?

- A. Dilation and curettage
- B. Ergonovine maleate (Ergotrate)
- C. Methylergonovine maleate (Methergine)
- D. Oxytocin injection (Pitocin)

Answer: A

Uterine hemorrhage after the first postpartum week is most often the result of retained placental fragments or subinvolution of the placental site. Curettage may do more harm than benefit by stimulating increased bleeding. Initial therapy should be aimed at decreasing the bleeding by stimulating uterine contractions with the use of Pitocin, Methergine, or Ergotrate. Prostaglandins could also be used in this setting.

70. A 26-year-old woman is brought to the emergency room with diffuse abdominal pain, uterine and adnexal tenderness and lightheadedness. Her past medical history is significant for pelvic inflammatory disease. Her temperature is 37°C, blood pressure is 90/60 mm Hg, pulse is 125/min, and respirations are 18/min.

Which of the following is the most likely diagnosis?

- A. Normal pregnancy
- B. Placenta previa
- C. Ruptured ectopic pregnancy
- D. Threatened abortion

Answer: C

Ectopic pregnancy (EP)

1. Implantation of zygote outside of uterus
2. Ruptured ectopic pregnancy presents with diffuse abdominal pain, cervical and adnexal tenderness, lightheadedness, and hemodynamic instability.
3. Most commonly occurs in ampulla of fallopian tube (95% of cases)

Risk factors of EP:

1. Pelvic inflammatory disease
2. Gynecologic surgery
3. Prior ectopic pregnancy
4. Sexually transmitted diseases
5. Smoking

The classic clinical triad of ectopic pregnancy is as follows:

1. Abdominal pain
2. Amenorrhea
3. Vaginal bleeding

The presence of the following signs suggests a surgical emergency:

1. Abdominal rigidity
2. Involuntary guarding
3. Severe tenderness
4. Evidence of hypovolemic shock (eg, orthostatic blood pressure changes, tachycardia)

Management:

1. Ruptured ectopic pregnancy: Immediate laparotomy/salpingectomy
2. Unruptured ectopic pregnancy: Methotrexate or salpingostomy.

71. A 30-years-old pregnant female at 40 weeks of pregnancy comes to the emergency room after premature rupturing of membranes. The amniotic fluid was clear. According to the medical documents, the woman has a history of recurrent HSV. During the physical examination, there are no herpes vesicles on the external part vagina. Which of the following is the best management of the patient?

- A. IV acyclovir
- B. Perform a sterile speculum examination
- C. Proceed to cesarean section

D. Proceed to vaginal delivery

Answer: B

Perform a sterile speculum examination. Then if the active lesions are present proceed to cesarean section. If there are no active lesions during speculum examination, the tactic can be either vaginal delivery or cesarean section. If the woman is not in labor and examination is normal, but with a known history of HSV, obtain a weekly cervical culture. If a woman has active lesions but not in labor, give IV acyclovir.

72. Which of the following tests would be positive in bacterial vaginosis?

- A. Coombs test
- B. Jarish-herxheimer reaction
- C. Scotch tape test
- D. Whiff test

Answer: D

Bacterial vaginosis (BV) is a disease of the vagina caused by excessive growth of bacteria. Common symptoms include increased vaginal discharge that often smells like fish. The discharge is usually white or gray in color. Positive whiff test and clue cells is typical for bacterial vaginosis.

Whiff test:

KOH slide. A sample of the vaginal discharge is placed on a slide and mixed with a solution of potassium hydroxide (KOH). The KOH kills bacteria and cells from the vagina, leaving only yeast for easier detection of a yeast infection. Several drops of a potassium hydroxide (KOH) solution may also be added to a sample of the vaginal discharge to test for any resultant strong fishy odor from the mix, which would indicate bacterial vaginosis. The latter procedure is called a Whiff test.

73. An 18-year-old G2P1 presents to the emergency department with abdominal pain and vaginal bleeding for the past day. Her last menstrual period was 7 weeks ago. On examination she is afebrile with normal blood pressure and pulse. Her abdomen is tender in the left lower quadrant with voluntary guarding. On pelvic examination, she has a small anteverted uterus, no adnexal masses, mild left adnexal tenderness, and mild cervical motion tenderness. Labs reveal a normal white count, hemoglobin of 10.5,

and a quantitative β -hCG of 2342. Ultrasound reveals a 10 x 5 x 6 cm uterus with a normal-appearing 1-cm stripe and no gestation sac or fetal pole. A 2.8-cm complex adnexal mass is noted on the left. In the treatment of this patient, laparoscopy has what advantage over laparotomy?

- A. Comparable persistent ectopic tissue rate
- B. Decreased hospital stays
- C. Lower fertility rate
- D. Lower repeat ectopic pregnancy rate

Answer: B

Conservative laparoscopic treatment of ectopic pregnancy is now commonplace. Recent studies suggest that the fertility rates for laparoscopy and laparotomy are comparable, as are the implications of repeat ectopic pregnancies. Certainly laparoscopy, because of its small incision, results in fewer breakdowns and shorter hospital stays, but with laparoscopic salpingostomy the incidence of retained/persistent ectopic pregnancy is higher.

74. Which of the following is the best next step when there is two positive Pap smears?

- A. Colposcopy
- B. Endocervical curettage
- C. HPV test
- D. Loop electrosurgical excision procedure

Answer: A

After the two positive Pap smears the best next step is colposcopy with biopsy.

75. Which of the following is the most common cause of hereditary breast and ovarian cancers?

- A. Alpha-fetoprotein
- B. BRCA mutation
- C. CDH1
- D. p53 mutation

Answer: B

BRCA1 and BRCA2 mutations are the most common cause of hereditary breast and ovarian cancers.

Patients with BRCA1 or BRCA2 gene mutations should be followed very closely to look for breast or ovarian cancer and may want to consider prophylactic mastectomies and oophorectomies.

Risk factors for ovarian cancer: family history, infertility, nulliparity, BRCA1 or BRCA2 gene mutations

Risk factors for breast cancer:

1. Female gender, older age.
2. Breast cancer in a first-degree relative.
3. BRCA1 and BRCA2 mutations (associated with early onset).
4. A personal history of breast cancer.
5. A high-fat and low-fiber diet.
6. A history of fibrocystic change with cellular atypia.
7. Exposure to estrogen (nulliparity, early menarche, late menopause).
8. First full-term pregnancy after age 35.

76. A 32-year-old G2P0101 presents to labor and delivery at 34 weeks of gestation, complaining of regular uterine contractions about every 5 minutes for the past several hours. She has also noticed the passage of a clear fluid from vagina. A nurse places the patient on an external fetal monitor and calls you to evaluate her status. The external fetal monitor demonstrates a reactive fetal heart rate tracing, with regular uterine contractions occurring about every 3 to 4 minutes. On sterile speculum examination, the cervix is visually closed. A sample of pooled amniotic fluid seen in the vaginal vault is fern and nitrazine-positive. The patient has a temperature of 38.8°C, pulse 102 beats per minute, blood pressure 100/60 mm Hg, and her fundus is tender to deep palpation. Her admission blood work comes back indicating a WBC of 19,000. The patient is very concerned because she had previously delivered a baby at 35 weeks who suffered from respiratory distress syndrome (RDS). You perform a bedside sonogram, which indicates oligohydramnios and a fetus whose size is appropriate for gestational age and with a cephalic presentation. Which of the following is the most appropriate next step in the management of this patient?

- A. Administer antibiotics
- B. Administer betamethasone
- C. Administer tocolytics
- D. Place a cervical cerclage

Answer: A

This patient with premature rupture of membranes (PROM) has a physical examination consistent with an intrauterine infection or chorioamnionitis. Chorioamnionitis can be diagnosed clinically by the presence of maternal fever, tachycardia, and uterine tenderness. Leukocyte counts are a nonspecific indicator of infection because they can be elevated with labor and the use of corticosteroids. When chorioamnionitis is diagnosed, fetal and maternal morbidity increases and delivery is indicated regardless of the fetus's gestational age. In the case described, antibiotics need to be administered to avoid neonatal sepsis. Ampicillin is the drug of choice to treat group B streptococcal infection. Since the fetal heart rate is reactive, there is no indication for cesarean section. Augmentation with Pitocin should be instituted as indicated. There is no role for tocolysis in the setting of chorioamnionitis, since delivery is the goal. There is also no role for the administration of steroids, since delivery is imminent. In addition, steroids are indicated at 32 weeks gestational age or less only with PROM. A cerclage (cervical stitch) would be placed in a pre-viable pregnancy where an incompetent cervix is diagnosed in the absence of ruptured membranes.

77. What is the first-line agent for the prevention of osteoporosis?

- A. Estrogen
- B. Oral contraceptive pills
- C. Progesterone
- D. Raloxifene

Answer: D

1. Osteoporosis has been defined as "a skeletal disease characterized by compromised bone strength predisposing a person to an increased risk of fracture".
2. Raloxifene is the first-line agent for the prevention of osteoporosis.
3. Raloxifene decreases breast cancer risk, but increases the risk of thromboembolism .
4. Raloxifene is a selective estrogen receptor modulator (SERM) that increases bone mineral density and is used to prevent osteoporosis.
5. Raloxifene is therefore contraindicated in patients with a history of deep venous thrombosis.
6. Estrogen is not currently recommended as a first-line agent in the management of osteoporosis

78. A 25-year-old G3P2 at 39 weeks is admitted in labor at 5 cm dilated. The fetal heart rate tracing is reactive. Two hours later, she is reexamined and her cervix is unchanged at 5 cm dilated. An IUPC is placed and the patient is noted to have 280 Montevideo units (MUV) by the IUPC. After an additional 2 hours of labor, the patient is noted to still be 5 cm dilated. The fetal heart rate tracing remains reactive. Which of the following is the best next step in the management of this labor?

- A. Attempt delivery via vacuum extraction.
- B. Augment labor with Pitocin.
- C. Continue to wait and observe the patient.
- D. Perform a cesarean section.

Answer: D

The patient is having adequate uterine contractions as determined by the intrauterine pressure catheter. Therefore, augmentation with Pitocin is not indicated. The patient's diagnosis is secondary arrest of labor, which requires cesarean section. In the active phase of labor, a multiparous patient should undergo dilation of the cervix at a rate of at least 1.5 cm/h if uterine contractions are adequate. There is no indication for the use of vacuum or forceps in this patient because the patient's cervix is not completely dilated and the head is unengaged. Assisted vaginal delivery with vacuum or forceps is indicated when the patient is completely dilated, to augment maternal pushing when maternal expulsive efforts are insufficient to deliver the fetus. It is not recommended to continue to allow the patient to labor if dystocia is diagnosed, because uterine rupture is a potential complication.

79. A 19-years-old African female with no history of twins in the family, got spontaneously pregnant by twins. Her weight: 52 kg & height: 145 cm What is the risk factor in this case?

- A. Age
- B. BMI
- C. Race
- D. Weight

Answer: C

Dizygotic twins are the most common. Identifiable risk factors include IVF, newly discontinued OCP, race (e.g. certain African regions), increased maternal age, geography, family history, or ovulation induction. References: Kaplan Lecture Note; Ob/Gyn and Toronto Notes

80. In a female after the birth developed the temperature of the body increased to 38.5 ° C. She complains of general weakness, pain at the bottom of the abdomen. During the pelvic examination: the lochia is moderate, cloudy, with an unpleasant odor; the uterus - 4 cm below the umbilicus, soft, painful when palpated. In the general analysis of blood, expressed leukocytosis, pulmonary leukocytes - 23000/mL; ESR - 40 mm / h. Which of the following is the risk factors for this disease?

- A. Cesarean section
- B. Multiple gestations
- C. Postpartum hemorrhage
- D. Preterm labor

Answer: A

Endometritis is inflammation of the endometrium, the inner lining of the uterus. Pathologists have traditionally classified endometritis as either acute or chronic: acute endometritis is characterized by the presence of microabscesses or neutrophils within the endometrial glands, while chronic endometritis is distinguished by variable numbers of plasma cells within the endometrial stroma. The most common cause of endometritis is infection. Symptoms include lower abdominal pain, fever and abnormal vaginal bleeding or discharge. Cesarean section, prolonged rupture of membranes and long labor with multiple vaginal examinations are important risk factors. Treatment is usually with broad-spectrum antibiotics.

81. A 9-year-old girl is presented by her mother to the office with complaints of regular vaginal bleeding. History reveals thelarche at age 7 and adrenarche at age 8. Which of the following is the most common cause of this condition in girls?

- A. Gonadal tumors
- B. Hypothyroidism
- C. Idiopathic

- D. McCune-Albright syndrome
- E. Tumors of the central nervous system

Answer: C

Precocious puberty is puberty occurring at an unusually early age. In most cases, the process is normal in every aspect except the unusually early age, and simply represents a variation of normal development. No age reliably separates normal from abnormal processes in children, but the following age thresholds for evaluation are thought to minimize the risk of missing a significant medical problem: Breast development in boys before appearance of pubic hair or testicular enlargement, Pubic hair or genital enlargement (gonadarche) in boys with onset before 9.5 years, Pubic hair (pubarche) before 8 or breast development (thelarche) in girls with onset before 7 years, Menstruation (menarche) in girls before 10 years. In approximately 90% of girls who experience precocious puberty, no underlying cause can be identified—although heredity and being overweight may contribute in some cases. When a cause cannot be identified, the condition is called idiopathic precocious puberty.

82. A young lady presented with a one-day history of burning micturition and frequency. The urinary dipstick is positive for white blood cells. Which of the following is the best action for this lady?

- A. Ask for urine culture and sensitivity
- B. Cystoscopy
- C. Order ultrasound of urinary tract
- D. Reassure her and follow up
- E. Treat with an antibiotic

Answer: A

This woman has urinary tract infection. The best next step to confirm the diagnosis and pick the right therapy is to do a urine culture and sensitivity to antibiotics.

83. A 22-year-old nulliparous woman has recently become sexually active. She consults you because of painful coitus, with the pain located at the vaginal introitus. It is accompanied by painful involuntary contraction of the

pelvic muscles. Other than confirmation of these findings, the pelvic examination is normal. Of the following, what is the most common cause of this condition?

- A. Bartholin's gland abscess
- B. Endometriosis
- C. Ovarian cyst
- D. Psychogenic causes
- E. Vulvar atrophy

Answer: D

This patient most likely has vulvodynia. Pain is the most notable symptom of vulvodynia, and can be characterized as a burning, stinging, irritation or sharp pain that occurs in the vulva and entrance to the vagina. It may be constant, intermittent or happen only when the vulva is touched, but vulvodynia is usually defined as lasting for years. Vulvodynia patients are more psychologically distressed than women with other vulvar pathology, and women with essential vulvodynia are more distressed than vulvodynia patients with an identified physical cause. Optimal management of vulvodynia patients should include attention to anxiety reduction, sexual function, normalization of everyday bodily sensations, reassurance about the absence of serious disease, and coordination of clinical care to ensure the maximum benefit from consultations.

<https://www.ncbi.nlm.nih.gov/pubmed/8090398>

84. A 27-year-old woman (G3P2) comes to the delivery floor at 37 weeks gestation. She has had no prenatal care. She complains that, on bending down to pick up her 2-year-old child, she experienced sudden, severe back pain that now has persisted for 2 hours. Approximately 30 minutes ago she noted bright red blood coming from her vagina. By the time she arrives at the delivery floor, she is contracting strongly every 3 minutes; the uterus is quite firm even between contractions. By abdominal palpation, the fetus is vertex with the head deeply engaged. Fetal heart rate is 130 beats per minutes. The fundus is 38 cm above the symphysis. Blood for clotting is drawn, and a clot forms in 4 minutes. Clotting studies are sent to the laboratory. Which of the following actions can most likely wait until the patient is stabilized?

- A. Administering oxytocin
- B. Attaching a fetal electronic monitor
- C. Inserting an intrauterine pressure catheter
- D. Stabilizing maternal circulation

Answer: A

The patient described in the question presents with a classic history for abruption— that is, the sudden onset of abdominal pain accompanied by bleeding. Physical examination reveals a firm, tender uterus with frequent contractions, which confirms the diagnosis. The fact that a clot forms within 4 minutes suggests that coagulopathy is not present. Because abruption is often accompanied by hemorrhaging, it is important that appropriate fluids (ie, lactated Ringer solution and whole blood) be administered immediately to stabilize the mother's circulation. Cesarean section may be necessary in the case of a severe abruption, but only when fetal distress is evident or delivery is unlikely to be accomplished vaginally. Internal monitoring equipment should provide an early warning that the fetus is compromised. The internal uterine catheter provides pressure recordings, which are important if oxytocin stimulation is necessary. Generally, however, patients with abruptio placentae are contracting vigorously and do not need oxytocin.

85. A 37-year-old pregnant woman comes to the emergency department because of abdominal pain. She is in her 26th week of pregnancy. This morning she began feeling painful contractions and noted vaginal bleeding. She is experiencing lower abdominal and pelvic pain between contractions as well. On exam, she is afebrile, blood pressure is 100/60 mmHg, heart rate is 102 bpm, and respiratory rate is 21 rpm. You note a gravid, hypertonic uterus on exam and moderate blood in the vaginal vault. Ultrasound reveals no abnormalities. Which of the following is the most likely diagnosis?

- A. Abruptio placentae
- B. Chorioamnionitis
- C. Onset of normal labor
- D. Placenta previa
- E. Vasa previa

Answer: A

Placental abruption is when the placenta separates early from the uterus, in other words separates before childbirth. It occurs most commonly around 25 weeks of pregnancy. Symptoms may include vaginal bleeding, lower abdominal pain, and dangerously low blood pressure. Complications for the mother can include disseminated intravascular coagulopathy and kidney failure. Complications for the baby can include fetal distress, low birthweight, preterm delivery, and stillbirth.

86. A newborn is noted to be quite jaundiced at 3 days of life. Laboratory data demonstrate his total bilirubin to be 17.8 mg/dL (direct bilirubin is 0.3 mg/dL). Which of the following factors is associated with an increased risk of neurologic damage in a jaundiced newborn?

- A. Hyperalbuminemia
- B. Maternal ingestion of phenobarbital during pregnancy
- C. Metabolic alkalosis
- D. Neonatal sepsis

Answer: D

Significant unconjugated serum bilirubin levels in full-term newborn infants can lead to diffusion of bilirubin into brain tissue and to irreversible neurologic damage; this condition is called kernicterus. Sulfisoxazole and other drugs compete with bilirubin for binding sites on albumin; therefore, the presence of these drugs can cause dislocation, not increased affinity, of bilirubin to tissues. Metabolic acidosis also reduces binding of bilirubin, and neonatal sepsis interrupts the blood–brain barrier, thus allowing diffusion of bilirubin into the brain. Administration of phenobarbital has been used to induce glucuronyl transferase in newborn infants and can reduce, rather than exacerbate, neonatal jaundice. Other factors that reduce the amount of unconjugated bilirubin bound to albumin (and therefore cause an increase in free unconjugated bilirubin) include hypoalbuminemia and certain compounds (eg, nonesterified fatty acids, which are elevated during cold stress) that compete with bilirubin for albumin-binding sites.

87. A pregnant 32 year old paraplegic woman underwent a cesarean section. A week later she developed a deep venous thrombosis in her left lower limb. If the thrombus breaks, which of the following would first receive the detached thrombus in its capillaries bed?

- A. Brain
- B. Heart
- C. Left Kidney
- D. Lungs

Answer: D

1. Deep venous thrombosis (DVT) is clotting of blood in a deep vein of an extremity (usually calf or thigh) or the pelvis. 2. DVT is the primary cause of pulmonary embolism. DVT results from conditions that impair venous return, lead to endothelial injury or dysfunction, or cause hypercoagulability. 3. DVT may be asymptomatic or cause pain and swelling in an extremity; pulmonary embolism is an immediate complication. 4. Diagnosis is by history and physical examination and is confirmed by objective testing, typically with duplex ultrasonography. 5. d-Dimer testing is used when DVT is suspected; a negative result helps to exclude DVT, whereas a positive result is nonspecific and requires additional testing to confirm DVT. 6. Treatment is with anticoagulants. (Treatment initially is with an injectable heparin (unfractionated or LMWH) followed by oral warfarin or perhaps a LMWH; the role of oral factor Xa and direct thrombin inhibitors is evolving.) 7. Prognosis is generally good with prompt, adequate treatment. 8. Common long-term complications include venous insufficiency with or without the postphlebotic syndrome. 9. Deep venous thrombosis usually begins in venous valve cusps. Thrombi consist of thrombin, fibrin, and RBCs with relatively few platelets (red thrombi); without treatment, thrombi may propagate proximally or travel to the lungs.

88. A 33-year-old has an infection in pregnancy. Which of the following is a reinfection, and therefore not a risk to the fetus ?

- A. Chickenpox virus
- B. Group B coxsackievirus
- C. Herpesvirus hominus type 2
- D. Rubella virus
- E. Shingles

Answer: E

89. An old lady postmenopausal with is diagnosed osteoporosis. Which of the following is the best treatment for this woman?

- A. Alendronate, PTH, Calcium
- B. Alendronate, vitamin D, and calcium
- C. Calcitonin
- D. Calcium, Levothyroxine, vitamin D

Answer: B

Post-menopausal women commonly develop osteoporosis primary type 1 which is due to the decline in estrogen, and worsens with age. So the proper treatment to prevent osteoporosis complications:
-lifestyle changes: diet, exercise, stop smoking, reduce caffeine, and stop drugs that induce osteoporosis -treatment and preventative drug therapy: bisphosphonate (alendronate), 1000-1500 mg OD calcium, and 800-1000iu vitamin D.

-SERM (selective estrogen receptor modulator) : raloxifene
-HRT

Levothyroxine, PTH, PTH is not used for osteoporosis treatment.

References:

Toronto notes 2017, GY34

Toronto notes 2017, E40,41,42

<http://www.uptodate.com/contents/osteoporosis-prevention-and-treatment-beyond-the-basics>

90. What is the role of metformin in PCOS?

- A. Anti-androgenic
- B. Decrease glucose level
- C. Decrease insulin resistance
- D. Menstrual regulation

Answer: C

The hallmark mark of PCOS is insulin resistance. Metformin decrease the insulin resistance in PCOS women.

91. Six laboratory technicians at the state health laboratory were working on a study using rabbits. The experiments involved an outbreak of acute febrile illnesses in workers from a slaughterhouse. The organism of interest was a gram-negative bacterium with tropism for mononuclear cells. A dysfunction of the animal cage air safety system allowed contaminated air to escape into the animal care facility and research laboratories. Four of the six technicians now suffer from a flu-like illness and pneumonitis. Which organism listed below is most likely the cause of this outbreak?

- A. *Bartonella (Rochalimaea) henselae*
- B. *Chlamydia trachomatis*
- C. *Coxiella burnetii*
- D. *Ehrlichia chaffeensis*
- E. *Rickettsia rickettsii*

Answer: C

Coxiella is transmitted through the respiratory tract rather than through the skin, and *B. henselae* from animal scratches. *Coxiella* may cause chronic endocarditis that is not very responsive to either antimicrobial therapy or valve replacement. About 50% of Q-fever cases in humans are asymptomatic. Symptomatic cases usually present with an acute febrile illness (flu-like disease, fever, pneumonitis, and possibly hepatitis). Diagnosis depends on a history with contact with newborn or infected adult animals (sheep, cattle, cats, rabbits, and dogs). About 2% to 10% of Q-fever patients progress to a chronic infection with endocarditis, which occurs in about 60% to 70% of those cases. No vaccine exists and doxycycline is effective when symptoms appear.

92. A 23-year-old G3P2002 presents for a routine obstetric (OB) visit at 34 weeks. She reports a history of genital herpes for 5 years. She reports that she has had only two outbreaks during the pregnancy, but is very concerned about the possibility of transmitting this infection to her baby. Which of the following statements is accurate regarding how this patient should be counseled?

- A. Starting at 36 weeks, weekly genital herpes cultures should be done.
- B. Suppressive antiviral therapy can be started at 36 weeks to help prevent an outbreak from occurring at the time of delivery.
- C. The patient should be scheduled for an elective cesarean section at 39 weeks of gestation to avoid neonatal infection.
- D. There is no risk of neonatal infection during a vaginal delivery if no lesions are present at the time the patient goes into labor.

Answer: B

A maternal HSV infection can be passed to the fetus via vertical transmission. If a pregnant woman with a history of herpes has no lesions present at the time she goes into labor, vaginal delivery is permitted. If lesions are present at the time of labor, then there is a 3% to 5% risk of transmitting the infection to the fetus, and cesarean delivery is recommended. Viral shedding can occur without the presence of a lesion. It is not recommended that a patient with a history of herpes be scheduled for an elective cesarean section. It is not recommended that weekly genital viral cultures be performed because such cultures do not predict whether a patient will be shedding the virus at the time of delivery. For patients at or beyond 36 weeks gestation, daily suppressive therapy with an antiviral medication such as acyclovir can be used to try to decrease the risk of viral shedding and outbreaks and the likelihood of a cesarean section.

93. Which of the following is the early symptom of cervical cancer?

- A. Dysmenorrhea
- B. Menorrhagia
- C. Polymenorrhea
- D. Postcoital bleeding

Answer: D

Vaginal bleeding, contact bleeding (one most common form being bleeding after sexual intercourse), or (rarely) a vaginal mass may indicate the presence of malignancy.

94. A 28-year-old G1P0 presents to your office at 24 weeks gestational age for an unscheduled visit secondary to right-sided groin pain. She describes the pain as sharp and occurring with movement and exercise. She denies any change in urinary or bowel habits. She also denies any fever or chills.

The application of a heating pad helps alleviate the discomfort. As her obstetrician, what should you tell this patient is the most likely etiology of this pain?

- A. Appendicitis
- B. Kidney stone
- C. Preterm labor
- D. Round ligament pain

Answer: D

The patient is giving a classic description of round ligament pain. Each round ligament extends from the lateral portion of the uterus below the oviduct, travels in a fold of peritoneum downward to the inguinal canal and inserts in the upper portion of the labium majus. During pregnancy, these ligaments stretch as the gravid uterus grows farther out of the pelvis and can thereby cause sharp pains, particularly with sudden movements. Round ligament pain is usually more frequently experienced on the right side due to the dextrorotation of the uterus that commonly occurs in pregnancy. Usually this pain is greatly improved by avoiding sudden movements and by rising and sitting down slowly. Local heat and analgesics may also help with pain control. The diagnosis of appendicitis is not likely because the patient is not experiencing any fever or anorexia. In addition, because the gravid uterus pushes the appendix out of the pelvis, pregnant women with appendicitis often have pain located much higher than the groin area. The diagnosis of preterm labor is unlikely because the pain is localized to the groin area on one side and is alleviated with a heating pad. Labor contractions generally cause generalized abdominal and low back pain. In addition, when labor occurs, the pains continue at rest, not just with movement. A urinary tract infection is unlikely because the patient has no urinary symptoms. A kidney stone is unlikely because usually the patient would complain of pain in the back and flank—not low in the groin. In addition, with a kidney stone the pain would occur not only with movement, but would persist at rest as well.

95. A postmenopausal woman was diagnosed with mild osteoporosis. Which of the following is the best way to prevent fracture in osteopenic postmenopausal lady!?

- A. Daily Vit D and Calcium
- B. Daily exercise
- C. Daily milk products consumption
- D. PTH

Answer: A

We suggest adequate calcium and vitamin D for all postmenopausal women with mild to moderate osteoporosis and bisphosphonates should be considered as first-line agents for the progression of osteoporosis. UpToDate

96. A mother calls you frantic because she has just been diagnosed with varicella (chicken pox). She delivered a term infant 7 days ago that appears to be eating, stooling, and urinating without difficulty. The child has been afebrile and seems to be doing well. Which of the following is the most appropriate step in management?

- A. Administer acyclovir to the infant.
- B. Administer varicella-zoster immunoglobulin to the infant.
- C. Advise the mother to continue regular well-baby care for the infant.
- D. Hospitalize the infant in the isolation ward.
- E. Isolate the infant from the mother.

Answer: C

Per CDC recommendations, varicella-zoster immunoglobulin (VZIG) should be administered to the infant immediately after delivery if the mother had the onset of varicella within 5 days prior to delivery, and immediately upon diagnosis if her chicken pox started within 2 days after delivery. If untreated, about half of these infants will develop serious varicella as early as 1 day of age. If a normal full-term newborn is exposed to chicken pox 2 or more days postnatally, VZIG and isolation are not necessary because these babies appear to be at no greater risk for complications than older children. Acyclovir may be used in infants at risk for severe varicella, such as those infants exposed perinatally.

97. A 36-year-old woman comes to the emergency room with complaints of increasing, worsening pain with menses, along with progressively heavier menstrual bleeding. During pelvic examination was found a diffusely enlarged, tender, and boggy uterus. Serum β -hCG is negative. Transvaginal ultrasound showed an enlarged uterus with a thickened posterior myometrium. Which of the following is most likely diagnosis in this patient?

- A. Adenomyosis
- B. Endometrial cancer

- C. Endometriosis
- D. Fibroids

Answer: A

Adenomyosis is a gynecologic medical condition characterized by the abnormal presence of endometrial tissue (the inner lining of the uterus) within the myometrium (the thick, muscular layer of the uterus). The condition is typically found in women between the ages of 35 and 50 but can also be present in younger women. Patients with adenomyosis often present with painful and/or profuse menses (dysmenorrhea & menorrhagia, respectively). Other possible symptoms are pain during sexual intercourse, chronic pelvic pain and irritation of the urinary bladder.

98. A 36-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the treatment of choice for this patient?

- A. IV estrogen
- B. Oral contraceptive
- C. Pelvic muscle exercises
- D. Urethropexy

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

99. A 17-year-old primipara presents to your office at 41 weeks. Her pregnancy has been uncomplicated. Because her cervix is unfavorable for induction of labor, she is being followed with biophysical profile (BPP) testing. Which of the following is correct information to share with the patient regarding BPPs?

- A. BPP testing includes assessment of amniotic fluid volume, fetal breathing, fetal body movements, fetal body tone, and contraction stress testing.
- B. False-positive results on BPP are rare even if the amniotic fluid level is low.
- C. Spontaneous decelerations during BPP testing are associated with significant fetal morbidity.
- D. The false-negative rate of the BPP is 10% so a reassuring BPP should be repeated in 48 hours.

Answer: C

The BPP is based on FHR monitoring (generally NST) in addition to four parameters observed on real-time ultrasonography: amniotic fluid volume, fetal breathing, fetal body movements, and fetal body tone. Each parameter gets a score of 0 or 2. A score of 8 or 10 is considered normal, a score of 6 is equivocal, and a score of 4 or less is abnormal and prompts delivery. The false-negative rate for the BPP is less than 0.1%, but false-positive results are relatively frequent, with poor specificity. Oligohydramnios is an ominous sign, as are spontaneous decelerations. In patients with profile scores of 8 but with spontaneous decelerations, the rate of cesarean delivery indicated for fetal distress has been 25%. Testing more frequently than every 7 days is recommended in patients with postterm pregnancies, connective tissue disease, chronic hypertension, and suspected fetal growth retardation, as well as in patients with previous fetal death.

100. Which of the following is the most sensitive screening method for group B Streptococcus (GBS) ?

- A. Culture of the vagina and rectum
- B. FTA-ABS
- C. Rapid plasma regain test
- D. VDRL

Answer: A

1. Bacterial infections can affect pregnant women from implantation of the fertilized ovum through the time of delivery and peripartum period. They may also affect the fetus and newborn.
2. **Group B Streptococcus** (GBS; *Streptococcus agalactiae*) is the most common cause of life-threatening infections in newborns and can also affect the mother.
3. **Culture of the vagina and rectum is the most sensitive screening method for GBS.**

CDC recommendations

1. At 35-37 weeks gestation, all pregnant women should undergo screening with a vaginal and rectal swab for culture.
2. If the culture result is positive, the woman should be treated during labor

Treatment

1. During labor and until delivery, IV penicillin G or ampicillin
2. In penicillin-allergic patients at low risk for anaphylaxis, IV cefazolin; in those at high risk for anaphylaxis, IV clindamycin or erythromycin
3. The neonate must be carefully observed for signs and symptoms of disease

101. Which of the following is the most common side effect of intrauterine device?

- A. Ectopic pregnancy
- B. Intrauterine device expulsion
- C. Pelvic inflammatory disease
- D. Uterus perforation

Answer: B

Complications from IUD placement are relatively rare. The most common complication is IUD expulsion, which occurs in approximately 2-10% of cases. Patients should be encouraged to feel for their IUD strings on a regular basis at home to ensure correct placement. Placement in the immediate postpartum period is associated with a higher expulsion rate than delayed postpartum insertion. Similarly, insertion immediately following first and second trimester spontaneous or elective abortion is also associated with a higher expulsion rate than delayed insertion. There are, however, numerous advantages to postprocedural and postpartum insertion, which may outweigh the risk of expulsion.

102. A 71-year-old G2P2 presents to your gynecology office for a routine examination. She says she is very healthy and denies taking any medication. She has no history of abnormal Pap smears and has only had one sexual partner in her lifetime. She is a nonsmoker and has an occasional cocktail with her dinner. She does not have any complaints. In addition, she denies any family history of cancer. The patient tells you that she is a widow and lives alone in an apartment in town. Her grown children have families of their own and live far away. She states that she is self-sufficient and spends her time visiting friends and volunteering at a local museum. Her blood pressure is 140/70 mm Hg. Her height is 5 ft 4 in and she weighs 130 lb. Which of the following are the most appropriate screening tests to order for this patient?

- A. Mammogram, colonoscopy, and bone densitometry
- B. Mammogram, colonoscopy, bone densitometry, and TB skin test
- C. Pap smear and mammogram
- D. Pap smear, mammogram, and colonoscopy

Answer: A

In postmenopausal women, routine screening for colon cancer is recommended with a colonoscopy to be performed every 10 years. Alternatively, flexible sigmoidoscopy can be performed every 5 years along with a yearly fecal occult blood test. Mammography should be performed every 1 to 2 years in all women 50 to 74 years of age. Postmenopausal women, who are not on hormone replacement therapy, and all women 65 years or older should be screened for osteoporosis with a DEXA scan to determine bone mineral density. Screening for cervical cancer with Pap smears may be discontinued after age 70 in low risk women (no prior abnormal Paps or treatment for cervical cancer, no history of HPV or HIV infection, and not immunocompromised). Tuberculosis skin testing need to be performed only in individuals with HIV infection, those who have close contact with individuals suspected of having TB, those who are IV drug users, those who are residents of nursing homes or long-term-care facilities, or those who work in a profession that is health care related. This patient does not have any risk factors that would necessitate TB testing. Auditory testing is not a routine screening test.

103. A 26-year-old G1P1 at 12 weeks gestation comes to the doctor with sudden onset of abdominal pain and vaginal bleeding. She denies passing anything beyond a small amount of blood. A pelvic examination demonstrates a closed cervix. An ultrasound has performed the fetus is in the uterus and is normal for his gestational age. Which of the following best describes the most likely diagnosis?

- A. Ectopic pregnancy
- B. Incomplete abortion
- C. Inevitable abortion
- D. Threatened abortion

Answer: D

At less than 20 weeks gestation with minimal vaginal bleeding and a closed cervix in the setting of a normal fetal ultrasound is consistent with a threatened abortion. A missed abortion consists of an abnormal ultrasound suggesting fetal demise in the absence of vaginal bleeding or cervical dilation. An inevitable abortion presents with vaginal bleeding and cervical dilation, but no loss of products of conception. An abnormal ultrasound is also seen. An incomplete abortion presents with vaginal bleeding, cervical dilation, and loss of some but not all products of conception. An abnormal ultrasound is also expected. A completed abortion presents with vaginal bleeding, cervical dilation, and total loss of products of conception. An abnormal ultrasound is also seen.

104. A woman comes with complaints of white vaginal discharge with fishy odor. During the application of KOH to the vaginal discharge appeared amine odor. What is the most appropriate treatment for this woman?

- A. Ampicillin
- B. Ceftriaxone
- C. Fluconazole
- D. Metronidazole

Answer: D

The patient most likely has bacterial vaginosis caused by *Gardnerella vaginalis*. Thin white/grayish vaginal discharge with fishy odor is typical for this disease. Also, this patient has a positive Whiff test (appearing amine odor after adding KOH to vaginal discharge) which confirms the diagnosis. The best treatment for bacterial vaginosis is clindamycin with metronidazole for 7 days.

105. Which of the following is the most common cancer during pregnancy?

- A. Breast
- B. Cervix
- C. Ovary
- D. Vulvar

Answer: A

The cancers that tend to occur during pregnancy are also more common in younger people. These cancers include: Cervical cancer Breast cancer Thyroid cancer Hodgkin lymphoma Non-Hodgkin lymphoma Melanoma Gestational trophoblastic tumor Breast cancer is the most common cancer diagnosed during pregnancy. It affects about 1 in 3,000 women who are pregnant. Because breasts typically enlarge and change texture during pregnancy, changes from cancer may be difficult to detect. Or they may not appear to be abnormal. As a result, pregnant women with breast cancer may be diagnosed later than non-pregnant women.

106. A 32-year-old G2P1 at 28 weeks gestation presents to labor and delivery with the complaint of vaginal bleeding. Her vital signs are: blood pressure 115/67 mm Hg, pulse 87 beats per minute, temperature 37.0°C, respiratory rate 18 breaths per minute. She denies any contraction and states that the baby is moving normally. On ultrasound the placenta is anteriorly located and completely covers the internal cervical os. Which of the following would most increase her risk for hysterectomy?

- A. Desire for sterilization
- B. Development of disseminated intravascular coagulopathy (DIC)
- C. Placenta accreta
- D. Prior vaginal delivery

Answer: C

Prior cesarean delivery and placenta previa, especially an anteriorly located placenta, increase your risk of placenta accreta, increta, and percreta. Placenta accreta, increta, or percreta are treated with hysterectomy. Advancing maternal age, multiparity, prior cesarean delivery, and smoking are associated with previa. Painless bleeding is the most common symptom, and is rarely fatal. Vaginal examination to evaluate for placenta previa is never permissible unless the woman is in the operating room prepared for immediate cesarean delivery, because even the most gentle examination can cause torrential hemorrhage. These “double setup” examinations are rarely necessary because ultrasound is usually readily available to make the diagnosis of placenta previa. Cesarean delivery is necessary in practically all cases of previa. Because of the poor contractile nature of the lower uterine segment, uncontrollable hemorrhage may follow removal of the placenta. Hysterectomy may be indicated if conservative methods to control hemorrhage fail. Resuscitation with blood products is the treatment of disseminated intravascular coagulopathy, not hysterectomy. Sterilization itself is not an indication for hysterectomy at the time of cesarean delivery, because the complications of surgery are much increased with a cesarean hysterectomy.

107. A 24-year-old primigravida presents for routine ultrasound at 20 weeks gestation. Based on the ultrasound findings, the patient is diagnosed with twin boys. Which of the following is true statement regarding the membranes and placentas of this patient’s twins if they are dizygotic?

- A. They are dichorionic and monoamniotic because the fetuses are of the same sex.
- B. They cannot be dichorionic and diamniotic.
- C. They cannot be monochorionic and monoamniotic.
- D. They must be monochorionic and monoamniotic because they are of the same sex.

Answer: B

Dizygotic twins cannot be monochorionic and monoamniotic since they are the result of fertilization of two eggs. Therefore they always have a dichorionic and diamniotic placenta regardless of the sex of the fetuses. The placentas of dizygotic twins may be totally separate or intimately fused depending upon the location of implantation of the two zygotes. Monozygotic twins are always of the same sex since they derive from the division of one zygote but may be monochorionic or dichorionic depending upon when the separation of the twins occurred. Of monozygotic twins, 20% to 30% have dichorionic placentation, the result of separation of the blastocyst in the first 2 days after fertilization. The majority of monozygotic twins have a diamniotic and monochorionic placenta. The least common type of placentation in monozygotic twins is the monochorionic and monoamniotic placenta; its incidence is only about 1%. Conjoined twins are always monozygotic.

108. A 32-year-old woman comes to the clinic at 36 weeks gestation complaining of headaches and uterine contractions and abdominal pain. She states that these symptoms began 3 days ago and have been worsening. The woman's blood pressure is 160/110 mmHg. During the physical examination, the pain is evoked upon palpation of all 4 quadrants. Which of the following would be the best next step in this woman?

- A. Give Tocolytics
- B. IV MgSO₄
- C. IV betamethasone
- D. Urine dipstick analysis

Answer: D

High blood pressure with epigastric pain may indicate early eclampsia. Urine dipstick analysis is appropriate to detect the proteinuria. If proteinuria is confirmed emergence vaginal delivery after IV MgSO₄ would be an appropriate choice.

109. A pregnant woman is diagnosed deep venous thrombosis. Which of the following is the best treatment for this woman?

- A. Dabigatran
- B. Enoxaparin

- C. Rivoroxaban
- D. Warfarin

Answer: B

For acute cases in the leg, the ACCP recommended a parenteral anticoagulant (such as LMWH, fondaparinux, or unfractionated heparin) for at least five days and a warfarin, the oral anticoagulant, the same day. LMWH and fondaparinux are suggested over unfractionated heparin, but both are retained in those with compromised kidney function, unlike unfractionated heparin. Warfarin can cause harm to the fetus and is not used for the treatment of deep venous thrombosis during pregnancy.

110. A 19-year-old female at 15 weeks is complaining of palpitations, anxiety, and heat intolerance. An ECG shows sinus tachycardia with a rate of 110 beats/minute. Which of the following is the treatment of choice during her pregnancy?

- A. Iodine
- B. Partial thyroidectomy
- C. Propothiouracil
- D. Radioactive iodine

Answer: C

1. Hyperthyroidism is characterized by hypermetabolism and elevated serum levels of free thyroid hormones. 2. Many common symptoms of hyperthyroidism are similar to those of adrenergic excess, such as nervousness, palpitations, hyperactivity, increased sweating, heat hypersensitivity, fatigue, increased appetite, weight loss, insomnia, weakness, and frequent bowel movements (occasionally diarrhea). Hypomenorrhea may be present. 3. Signs may include warm, moist skin; tremor; tachycardia; widened pulse pressure and atrial fibrillation. 4. Diagnosis is clinical and with thyroid function tests. Treatment depends on cause. 5. Hyperthyroidism is often treated with antithyroid drugs in pregnancy. 6. Propylthiouracil is recommended to be used during the first trimester and switch to methimazole is recommended thereafter to reduce risk of hepatotoxicity. 7. This patient is symptomatic and should be treated with PTU or methimazole. 8. A low-dose beta-blocker could also be used to control symptoms until the PTU is effective. 9. Radioactive iodine is not safe in pregnancy and is contraindicated. 10. Iodine may cause goiter in the neonate.

111. A 35 year-old woman was seen in the Gynaecological Outpatient Clinic with excessive and offensive vaginal discharge.

What organism is the most likely cause of her vaginal discharge?

- A. Chlamydia trachomatis
- B. Gonococcal infection
- C. Staphylococcus aureus
- D. Trichomonous vaginalis

Answer: D

1. Trichomoniasis is infection of the vagina or male genital tract with *Trichomonas vaginalis* (TV).
2. TV is a flagellated protozoan. It is a sexually transmitted infection which usually causes an offensive vaginal discharge.
3. It can be asymptomatic or cause urethritis, vaginitis, or occasionally cystitis, epididymitis, or prostatitis.
4. Diagnosis is by direct microscopic examination, dipstick tests, or nucleic acid amplification tests of vaginal secretions or by urine or urethral culture.
5. Patients and sex partners are treated with metronidazole or tinidazole.

112. A 63-year-old postmenopausal woman presents to her gynecologist reporting difficulty with intercourse. She states having vaginal dryness and pruritus. Pelvic exam is notable for thin and dry vaginal vestibule. There is no abnormal discharge. Which of the following is the best treatment for this woman?

- A. Metronidazole cream
- B. Surgical treatment
- C. Topical estrogen
- D. Topical steroid

Answer: C

Topical estrogen replacement (ideal): Premarin® cream, VagiFem® tablets, or oral or transdermal hormone replacement therapy (if treatment for systemic symptoms is desired) Reference: Toronto Notes , <http://patient.info/health/menopause-and-hormone-replacement-therapy-hrt>

113. A 30-year-old gravida 3 para 2 presents with fever of 39 C, a pain in her flank and chills. On examinations, there is slight bilateral costovertebral angle tenderness. Lab results reveal positive urinalysis (presence of nitrites and white blood cells). Which of the following is the treatment of choice for this patient?

- A. Intravenous ceftriaxone
- B. levofloxacin
- C. nitrofurantoin
- D. trimethoprim/sulfamethoxazole

Answer: A

Pyelonephritis

1. Patient presents with urinary frequency, urgency, burning, and dysuria in the

2. same way as cystitis, and there is flank pain and tenderness.

Pyelonephritis

3. is also a more severe disease, so there is a higher fever and the patient is much

4. more ill.

5. Diagnostic: Urinalysis and urine culture the same as for cystitis

6. Treatment: Any of the medications for gram-negative bacilli are effective. Ciprofloxacin is recommended for outpatient treatment.

7. For inpatient therapy use ceftriaxone, ertapenem, quinolones, ampicillin, and gentamicin.

8. Sulfonamides are contraindicated late in pregnancy because they

may increase the incidence of kernicterus. 9. Tetracyclines are

contraindicated because administration late in pregnancy may lead to discoloration of the child's deciduous teeth.

10. Nitrofurantoin may induce hemolysis in women who are deficient in G6PD,

114. A 30-year old man presents to your clinic with high-grade fever, rigors and headache. His symptoms started 5 days ago. The patient has recently traveled to Africa . Which of the following is the most likely diagnosis?

- A. Hepatitis E
- B. Malaria
- C. Viral Encephalitides
- D. Yellow fever

Answer: D

1. Yellow fever is a mosquito-borne flavivirus infection endemic in tropical South America and sub-Saharan Africa.
2. Symptoms may include sudden onset of fever, relative bradycardia, headache, and, if severe, jaundice, hemorrhage, and multiple organ failure.
3. Diagnosis is with viral culture, reverse transcription PCR, and serologic tests.
4. Treatment is supportive.
5. Prevention involves vaccination and mosquito control

115. A 1-week-old black infant presents to you for the first time with a large, fairly well-defined, grey-blue lesion over the buttocks bilaterally. The lesion is not palpable, and it is not warm or tender. The mother denies trauma and reports that the lesion has been present since birth. This otherwise well-appearing infant is growing and developing normally and appears normal upon physical examination. Which of the following is the most appropriate course of action in this infant?

- A. Administration of vitamin K
- B. Reassurance of the normalcy of the condition
- C. Report the family to child protective services
- D. Soft tissue films of the buttocks to identify calcifications

Answer: B

The lesion is a Mongolian spot, a bluish-gray lesion located over the buttocks, lower back, and occasionally, the extensor surfaces of the extremities. These are common in blacks, Asians, and Latin Americans. They tend to disappear by 1 to 2 years of age, although those on the extremities may not fully resolve. Child abuse is unlikely to present with bruises alone; children frequently present with more extensive injuries. Subcutaneous fat necrosis, which may ultimately result in subcutaneous calcifications in the affected area, is usually found as a sharply demarcated, hard lesion on the cheeks, buttocks, and limbs but it usually is red. Hemophilia and vitamin K deficiency rarely present with subcutaneous lesions as described and are more likely to present as a bleeding episode.

116. A 18-year-old woman is in a car accident and is taken to an emergency room, where she receives a chest x-ray and a film of her lower spine. It is later discovered that she is 10 weeks pregnant. Which of the following is most likely correct for this woman?

- A. High doses of radiation in the first trimester primarily affect brain and CNS
- B. High likelihood of serious fetal damage
- C. Radiation does not alter the karyotype
- D. The incidence of leukemia is raised in her fetus

Answer: C

While a 50-rad exposure in the first trimester of pregnancy would be expected to entail a high likelihood of serious fetal damage and wastage, the anticipated fetal exposure for chest x-ray and one film of the lower spine would be less than 1 rad. This is well below the threshold for increased fetal risk, which is generally thought to be 10 rads. High doses of radiation in the first trimester primarily affect developing organ systems such as the heart and limbs; in later pregnancy, the brain is more sensitive. The chromosomes are determined at the moment of conception. Radiation does not alter the karyotype, and determination of the karyotype is not normally indicated for a 24-year-old patient. The incidence of leukemia is raised in children receiving radiation therapy or those exposed to the atomic bomb, but not from such a minimal exposure as here.

117. A 56-year-old woman comes to the emergency room with uncontrolled urination upon coughing, sneezing or laughing. She denies any subjective fever, dysuria, or hematuria. Pelvic examination is notable for a protrusion of the anterior vagina. There is no cystocele, urethrocele, or other evidence of pelvic relaxation. Which of the following is the best initial treatment for this woman?

- A. Kegel Exercise with local estrogen cream
- B. Marshall-Marchell-Krantz procedure
- C. Midurethral sling procedure
- D. The Burch procedure

Answer: A

This woman most likely has stress incontinence. The best initial therapy for her is Kegel Exercise with local estrogen cream. Midurethral sling procedure - minimally invasive requiring only small vaginal and skin incisions Surgical tightening of urethra or Marshall-Marchetti-Krantz (MMK) procedure, which involves the attachment of the periurethral tissue to the symphysis pubis The long-term cure rate for an MMK procedure is around 80%. The Burch procedure suspends the bladder neck to Cooper ligament of the pubic bone using an abdominal approach.

118. Which of the following is the most appropriate management of a face presentation with no fetal distress and an adequate pelvis, as determined by digital examination?

- A. Allow spontaneous labor with vaginal delivery
- B. Allow to labor spontaneously until complete cervical dilation is achieved and then perform an internal podalic version with breech extraction
- C. Attempt manual conversion of the face to vertex in the second stage of labor
- D. Perform forceps rotation in the second stage of labor to convert mentum posterior to mentum anterior and to allow vaginal delivery
- E. Perform immediate cesarean section without labor

Answer: A

Face presentation is an unusual complication of pregnancy; it occurs once in every 500 to 600 deliveries. Prematurity, fetal macrosomia, anencephaly, and cephalopelvic disproportion (CPD) are the major obstetric factors that predispose the fetus to face presentation. Although the mechanisms of labor in face presentation are different from those of simple vertex presentation, there is no consistent alteration in the duration of labor in the absence of underlying CPD. When disproportion does not exist and gross anomalies are not present, the prognosis for spontaneous vaginal delivery is excellent. So, allow spontaneous labor with vaginal delivery is the correct answer.

119. A 35-year-old woman comes to her primary care physician for a routine examination. She notes that she began having hot flashes 3 months prior to presentation along with occasional painful urination. She notes that

her periods have become more frequent and irregular for the last 10 months, but have become lighter overall. Her laboratory findings show an increased level of FSH and LH. Which of the following is the most likely diagnosis in this woman?

- A. Kallmann syndrome
- B. Polycystic ovary syndrome
- C. Premature ovarian failure
- D. Turner syndrome

Answer: C

This patient most likely has premature ovarian failure based on the laboratory findings. Turner syndrome is characterized by primary amenorrhea. Kallmann syndrome is characterized by low LH and FSH. Polycystic ovary syndrome is characterized by high LH and low or normal FSH.

120. The pregnant woman comes to the consultation and wants to know her probable delivery date. Her last menstrual period was 14th of March, 2015. Which of the following is the most likely delivery date for this woman?

- A. 14th of December, 2015
- B. 21th of December, 2015
- C. 7th of December, 2015
- D. 7th of January, 2016

Answer: B

Estimated date of delivery may be calculated by Naegle's Rule: 1st day of LMP + 7 days – 3 months

LMP = 1 Apr 2013, Estimated date of delivery= 8 Jan 2014 (modify if cycle >28 d by adding number of d >28)

<http://reference.medscape.com/calculator/estimated-delivery-date-pregnancy>

121. An 18-year-old consults you for evaluation of disabling pain with her menstrual periods. The pain has been present since menarche and is accompanied by nausea and headache. History is otherwise unremarkable,

and pelvic examination is normal. You diagnose primary dysmenorrhea and recommend initial treatment with which of the following?

- A. Antiprostaglandins
- B. Danazol
- C. Ergot derivatives
- D. Gonadotropin-releasing hormone (GnRH) analogues

Answer: A

Dysmenorrhea is considered secondary if associated with pelvic disease such as endometriosis, uterine myomas, or pelvic inflammatory disease. Primary dysmenorrhea is associated with a normal pelvic examination and with ovulatory cycles. The pain of dysmenorrhea is usually accompanied by other symptoms (nausea, fatigue, diarrhea, and headache), which may be related to excess of prostaglandin F_{2α}. The two major drug therapies effective in dysmenorrhea are oral contraceptives and antiprostaglandins. GnRH analogues are used in several gynecologic conditions, but would not be first-line therapy for primary dysmenorrhea. Danazol is used for the treatment of endometriosis and ergot derivatives for hyperprolactinemia. Analgesics such as codeine or narcotics would generally be employed only in very severe cases when no other treatment provides adequate relief. Treatment will reduce the number of women incapacitated by menstrual symptoms to about 10% of those treated. Contrary to past beliefs, psychological factors play only a minor role in dysmenorrhea.

122. A woman comes in active labor. There is 6cm cervix dilation. Because she is scared of the second phase of labor and of probable episiotomy she asked for local anesthesia. The anesthesiologist decided to do the pudendal nerve block. Which of the followings would the most likely pain sensitive?

- A. Ana sphincter
- B. Anterior vestibule
- C. Prenial body
- D. Vulva

Answer: B

Pudendal anesthesia, also known as a pudendal block, or saddle block, is a form of local anesthesia commonly used in the practice of obstetrics to relieve pain during the delivery of baby by forceps. The pudendal nerve block prevents fainting during forceps delivery which was common before pudendal nerve block use was available. The anesthesia is produced by blocking the pudendal nerves near the ischial spine of the pelvis. The ischial spine separates the greater and lesser sciatic foramina at the exit of the bony pelvis. Pelvis in Latin means 'saucepan' and one can view the bony human pelvis as a saucepan, with circular/cylindrical walls, but without a base and a flaired upper rim, or wings to which the gluteal muscles (hip bone stabilisers) attach. The pelvic bony cylindrical walls also have a curve, which follows that of the curve of the sacrum, the fused vertebral bones of the lower end of the spine. The pudendal block gets its name because a local anesthetic, such as lidocaine or chlorprocaine, is injected into the pudendal canal where the pudendal nerve is located. This allows quick pain relief to the perineum, vulva, and vagina. A pudendal block is usually given in the second stage of labor just before delivery of the baby. It relieves pain around the vagina and rectum as the baby comes down the birth canal. It is also helpful just before an episiotomy. Lidocaine is usually preferred for a pudendal block because it has a longer duration than chlorprocaine which usually lasts less than one hour.

123. A 25-year-old, G1P1, woman presents with a painful and erythematous right breast. Since the birth of her first son 6 weeks ago, she tried to breastfeed, however, it is really painful. Upon physical exam, there are visible small fissures around the nipple. The breast feels warm and there is a palpable fluctuant mass. Her temperature is 38.6°C. Purulent discharge from the nipple is noted. A microscopy of breast milk shows Gram-positive organisms. Which of the following is most likely presents in the organism which causes the disease in this woman?

- A. Coagulase
- B. Ferrochelatase
- C. Oxidase
- D. Streptokinase

Answer: A

This woman most likely has breast abscess. A breast abscess is a collection of pus that develops into the breast with different causes. Some women (approximately 15%) will require antibiotic treatment for infection which is usually caused by bacteria from the skin or the baby's mouth that entering the milk ducts through skin lesions of the nipple or through the opening of the nipple. Infection is usually caused by staphylococcus aureus. S. aureus was differentiated from other staphylococci by the coagulase test.

124. A 25-year-old woman on liver enzyme inducers is requesting contraceptive advice. The method providing her with the most reliable form of contraception would be

- A. Combined oral contraceptive pill
- B. Depo-Provera injection
- C. Male condom
- D. Progesterone-only pill.
- E. Copper intrauterine device

Answer: E

Women who are using enzyme-inducing drugs and are in need of EC should be informed that a copper intrauterine device (Cu-IUD) is the most effective method of EC. Drugs which induce liver enzymes include: antiepileptic - Carbamazepine, Eslicarbazepine, Oxcarbazepine, Phenytoin, Phenobarbital antibiotics - Rifabutin, Rifampicin antiretroviral protease inhibitors - Ritonavir, Ritonavir-boosted atazanavir, darunavir, fosamprenavir, lopinavir, non-nucleoside reverse transcriptase inhibitors - Efavirenz, Nevirapine Herbal - St Johns Wort <http://www.gpnotebook.co.uk/simplepage.cfm?ID=x20110617181816842932>

125. Which can cross placenta and cause deafness and heart problems?

- A. HBV
- B. Measles
- C. Mumps
- D. Rubella

Answer: D

Rubella, also known as German measles or three-day measles, is an infection caused by the rubella virus. This disease is often mild with half of people not realizing that they are infected. Infection during early pregnancy may result in a child born with congenital rubella syndrome (CRS) or miscarriage. Symptoms of CRS include problems with the eyes such as cataracts, ears such as deafness, heart, and brain. Problems are rare after the 20th week of pregnancy.

126. Which of the following is not a normal physiological change in pregnancy?

- A. Decrease of gastric motility
- B. Decrease of respiratory rate
- C. Increase of Blood volume
- D. Increase of Cardiac output & heart rate

Answer: B

Cardiac output (CO) increases 30 to 50%, beginning by 6 wk gestation and peaking between 16 and 28 wk (usually at about 24 wk). It remains near peak levels until after 30 wk. Total blood volume increases proportionally with CO, but the increase in plasma volume is greater (close to 50%, usually by about 1600 mL for a total of 5200 mL) than that in RBC mass (about 25%); thus, Hb is lowered by dilution, from about 13.3 to 12.1 g/dL. This dilutional anemia decreases blood viscosity. With twins, total maternal blood volume increases more (closer to 60%). WBC count increases slightly to 9,000 to 12,000/ μ L. Marked leukocytosis ($\geq 20,000/\mu$ L) occurs during labor and the first few days postpartum. Changes in renal function roughly parallel those in cardiac function. GFR increases 30 to 50%, peaks between 16 and 24 wk gestation, and remains at that level until nearly term, when it may decrease slightly because uterine pressure on the vena cava often causes venous stasis in the lower extremities. Renal plasma flow increases in proportion to GFR. As a result, BUN decreases, usually to < 10 mg/dL (< 3.6 mmol urea/L), and creatinine levels decrease proportionally to 0.5 to 0.7 mg/dL (44 to 62 μ mol/L). Lung function changes partly because progesterone increases and partly because the enlarging uterus interferes with lung expansion. Progesterone signals the brain to lower CO₂ levels. To lower CO₂ levels, tidal and minute volume and respiratory rate increase, thus increasing plasma pH. O₂ consumption increases by about 20% to meet the increased metabolic needs of the fetus, placenta, and several maternal organs. Inspiratory and expiratory reserve, residual volume and capacity, and plasma Pco₂ decrease. As pregnancy progresses, pressure from the enlarging uterus on the rectum and lower portion of the colon may cause constipation. GI motility decreases because elevated progesterone levels relax smooth muscle. Heartburn and belching are common, possibly resulting from delayed gastric emptying and gastroesophageal reflux due to relaxation of the lower esophageal sphincter and diaphragmatic hiatus. HCl production decreases. Increased levels of estrogens, progesterone, and MSH contribute to pigmentary changes, although exact pathogenesis is unknown. These changes include Melasma (mask of pregnancy), which is a blotchy, brownish pigment over the forehead and malar eminences Darkening of the mammary areolae, axilla, and genitals Linea nigra, a dark line that appears down the midabdomen Melasma due to pregnancy usually regresses within a year. Incidence of spider angiomas, usually only above the waist, and of thin-walled, dilated capillaries, especially in the lower legs, increases.

127. A 24-years-old woman with normal previous menstrual function starts issues with her cycles which became irregular. Also, she has bilateral breast milk discharge. The level of prolactin is highly elevated. Which of the following is the best next step for this woman?

- A. Determination of the level of gonadotropins
- B. Magnetic resonance imaging of the head
- C. Progesterone assay
- D. Ultrasonography of organs of the small pelvis

Answer: B

A prolactinoma is a benign tumor (adenoma) of the pituitary gland that produces a hormone called prolactin. It is the most common type of functioning pituitary tumor. Symptoms of prolactinoma are too much prolactin in the blood (hyperprolactinemia), or those caused by pressure of the tumor on surrounding tissues. A doctor will test for prolactin blood levels in women with unexplained milk secretion (galactorrhea) or irregular menses or infertility, and in men with impaired sexual function and, in rare cases, milk secretion. If prolactin is high, a doctor will test thyroid function and ask first about other conditions and medications known to raise prolactin secretion. The doctor will also request a magnetic resonance imaging (MRI), which is the most sensitive test for detecting pituitary tumors and determining their size. MRI scans may be repeated periodically to assess tumor progression and the effects of therapy. Computed Tomography (CT scan) also gives an image of the pituitary, but it is less sensitive than the MRI.

128. A 21-years-old female comes for preconception counseling. She has a history of fetal death after delivery with neural tube defect. Which of the following is the best advice for her?

- A. Take Fe before and during the pregnancy
- B. Take vitamin B6 before and during the pregnancy
- C. Take vitamin B9 before and during the pregnancy
- D. There is no way we can influence this

Answer: C

Inadequate levels of folate (vitamin B9) and vitamin B12 during pregnancy have been found to lead to increased risk of NTDs. Although both are part of the same biopathway, folate deficiency is much more common and therefore more of a concern. Folate is required for the production and maintenance of new cells, for DNA synthesis and RNA synthesis. Folate is needed to carry one carbon groups for methylation and nucleic acid synthesis. It has been hypothesized that the early human embryo may be particularly vulnerable to folate deficiency due to differences of the functional enzymes in this pathway during embryogenesis combined with high demand for post translational methylations of the cytoskeleton in neural cells during neural tube closure.

129. A male patient presents to your clinic with an ulcer on his penis. Painless bilateral inguinal lymphadenopathy is present. Which of the following tests will most likely reveal a diagnosis?

- A. Blood culture
- B. Dark field microscopy
- C. FTA-Abs
- D. RPR
- E. VDRL

Answer: B

Syphilis is caused by the spirochete *Treponema pallidum* and is characterized by 3 sequential clinical, symptomatic stages separated by periods of asymptomatic latent infection.

Common manifestations include genital ulcers, skin lesions, meningitis, aortic disease, and neurologic syndromes.

Primary syphilis is the first stage after infection. Papules become painless ulcers with rolled edges (chancres) which appear 2-3 weeks after contact at the site of infection, most commonly the vulva, vagina, or cervix. Darkfield microscopy of lesion exudate is positive for the spirochete, but the nonspecific serologic tests VDRL or rapid plasma reagin [RPR] test) are not yet positive. Without treatment the chancre spontaneously disappears.

Diagnosis

1. The diagnosis of primary syphilis is best made via spirochete identification on dark field microscopy.
2. VDRL, RPR and FTA-Abs are tests looking for antibodies against syphilis.
3. Blood culture is never helpful for syphilis.

130. A 29-year-old woman in her first trimester presents with painless profuse vaginal bleeding. Her blood pressure is 130/90 mm Hg. She has facial and hand edema. Pelvic examination reveals a 24-week-sized uterus. Urinalysis reveals proteinuria. Which of the following is the most likely diagnosis?

- A. Abruptio placenta
- B. Hydatidiform mole
- C. Multiple-gestation pregnancy
- D. Normal pregnancy
- E. Placenta previa

Answer: B

Hydatidiform moles are one of the most common but benign forms of gestational trophoblastic disease. A hydatidiform mole can either be complete or partial. The absence or presence of a fetus or embryo is used to distinguish complete from partial moles: complete moles are associated with the absence of a fetus. Partial moles usually occur with an abnormal fetus or may even be associated with fetal demise. In the classic case of molar pregnancy, quantitative analysis of beta-HCG shows hormone levels in both blood and urine greatly exceeding those produced in a normal pregnancy at the same stage. Ultrasound will show enlarged uterus, multiple cystic structures classically give a "snow storm" or "bunch of grapes" type appearance. Ref: <https://radiopaedia.org/articles/hydatidiform-mole>

131. A 33-year old multigravida at 38 weeks gestation became disoriented, breathless and cyanotic after spontaneous vaginal delivery. The doctor noticed bleeding from the IV line site. Her blood pressure is 75/49 mm Hg, pulse is 120/min, and respirations are 27/min. Oxygen saturation is 70% on facemask.

Which of the following is the most likely diagnosis?

- A. Abruptio Placentae
- B. Amniotic fluid embolism
- C. Myocardial Infarction
- D. Pulmonary Embolism

Answer: B

1. **Amniotic fluid embolism** (AFE) is a rare obstetric emergency in which it is postulated that amniotic fluid, fetal cells, hair, or other debris enter the maternal circulation, causing cardiorespiratory collapse.
2. Amniotic fluid embolism may occur after amniocentesis or during labor.
3. Reported risk factors for development of AFE include multiparity, advanced maternal age, male fetus, and trauma.
4. Abrupt onset of hypoxia with respiratory failure, cardiogenic shock and seizures, in a patient who had undergone amniocentesis or delivered, is most likely due to amniotic fluid embolism.
5. Disseminated intravascular coagulation (DIC) is the most feared complication in patients with amniotic fluid embolism.

132. A 33-years old woman at 35 weeks of gestation came with complaints of absent fetal movement. Ultrasonography shows no fetal heart sounds. The woman is hypoxic with decreased DLCO =65% (Normal is 80%). Blood test shows Low Hct, prolonged PT, and prolonged PTT. Which of the following is the most likely diagnosis in this woman?

- A. Amniotic embolism
- B. Disseminated intravascular coagulation
- C. Immune thrombocytopenic purpura
- D. Thrombotic thrombocytopenic purpura

Answer: A

An amniotic fluid embolism (AFE) is a rare obstetric emergency in which amniotic fluid, enters the bloodstream of the mother to trigger a serious reaction. This reaction then results in cardiorespiratory collapse (ARDS) and massive bleeding (Disseminated intravascular coagulation).

133. A 51-year-old female comes with a feeling of heat all over the body followed by profuse sweating that lasts five minutes. These episodes are happening repetitively throughout the day and disturb her sleep at night. Her last menstrual period was over six months ago. Also she has complaints of fatigue, poor concentration and a general sense of hopelessness. Which of the following is the best treatment for this woman?

- A. Amitriptyline
- B. Oral contraceptive pills
- C. Phenelzine
- D. Venlafaxine

Answer: B

For post menopausal mood lability/depression we can use HRT with or without SSRIs. The best choice for this woman is combined estrogen and progesterone (oral contraceptive pills).

134. A 20-year-old G1 at 38 weeks gestation presents with regular painful contractions every 3 to 4 minutes lasting 60 seconds. On pelvic examination, she is 3 cm dilated and 90% effaced; an amniotomy is performed and clear fluid is noted. The patient receives epidural analgesia

for pain management. The fetal heart rate tracing is reactive. One hour later on repeat examination, her cervix is 5 cm dilated and 100% effaced. Which of the following is the best next step in her management?

- A. Begin pushing.
- B. Initiate Pitocin augmentation for protracted labor.
- C. No intervention; labor is progressing normally.
- D. Perform cesarean delivery for inadequate cervical effacement.

Answer: C

Patient has normal and adequate labor; no intervention is needed at this time. The patient is not completely dilated, so pushing is not warranted and it can cause cervical lacerations and swelling. An epidural can prolong the active phase by one hour, however stopping it will not make labor progress more quickly.

135. Which of the following is the most common cause of hysterectomy?

- A. Adenomyosis
- B. Endometriosis
- C. Uterine cancer
- D. Uterine fibroid

Answer: D

Hysterectomy was the classical method of treating fibroids. Although it is now recommended only as last option, fibroids are still the leading cause of hysterectomies in the US.

136. A Jewish couple comes in to see you for preconception counseling. They are concerned that they might be at an increased risk of certain genetic diseases because of their ethnic background. The woman is 38 years old and tells you that neither side of the family has a history of any genetic disorders. Which one of the following statements is the best advice for this couple?

- A. Tay-Sachs disease has a carrier frequency of 1 in 30 in the Jewish population, and the couple therefore should be screened for this genetic disease.
- B. They are at an increased risk of having a baby born with a neural tube defect associated with advanced maternal age.
- C. They are at an increased risk of having β -thalassemia.

- D. They do not need to undergo additional screening if there is no history of affected children in their families.

Answer: A

Individuals of Jewish ancestry are at increased risk for Tay-Sachs disease (carrier frequency 1/30), Canavan disease (carrier frequency 1/40), and Gaucher disease (carrier frequency 1/12 to 1/25). The American College of Obstetricians and Gynecologists recommends screening all Jewish couples for Tay-Sachs and Canavan disease. Whites of Northern European descent are at an increased risk of cystic fibrosis, which has a carrier frequency of 1/25 in white Americans. ACOG does not recommend widespread screening for cystic fibrosis. Individuals who have a first- or second-degree affected relative should be counseled and offered screening. β -Thalassemias are hemoglobinopathies especially prevalent in individuals of Mediterranean or Asian heritage. Neonates who are homozygous for thalassemia major (Cooley anemia) suffer from intense hemolysis and anemia. The couple described is not at an increased risk of β -thalassemias and therefore does not need to undergo screening with hemoglobin electrophoresis. Based on maternal age or ethnic background, this couple is not at increased risk of having a baby born with a neural tube defect. Neural tube defects follow a multifactorial inheritance pattern.

137. A woman at 13 weeks comes to the doctor with symptoms of urinary tract infection. Regarding antibiotics which of the following is the most appropriate?

- A. Amoxicillin-clavulanate
- B. Ciprofloxacin
- C. Doxycycline
- D. Trimethoprim-sulfamethoxazole

Answer: A

Urinary tract infections (UTIs) are common in pregnancy.

UTIs are associated with risks to both the fetus and the mother, including pyelonephritis, preterm birth, low birth weight, and increased perinatal mortality.

Pyelonephritis is the most common urinary tract complication in pregnant women, occurring in approximately 2% of all pregnancies.

In most cases of bacteriuria and urinary tract infection (UTI) in pregnancy, the prognosis is excellent.

Safe and Recommended

1. Amoxicillin
2. Amoxicillin-clavulanate
3. Nitrofurantoin
4. Cephalexin

Contraindicated

1. Fluoroquinolones e.g ciprofloxacin , levofloxacin
2. Tetracycline e.g Doxycycline
3. Trimethoprim-sulfamethoxazole e.g Bactrim

138. A blood group A Rh-negative mother gave birth to her first baby who is AB Rh-negative. Which of the following immunoglobulins should be given to her for prevention of complications during coming pregnancies?

- A. Ig A
- B. Ig D
- C. Ig G
- D. Rho(D) Ig
- E. There is no need to give anything

Answer: E

Rh disease is a type of hemolytic disease of the newborn which could be developed when the mother is Rh-negative and the baby is Rh-positive. In our case both mother and a baby are Rh-negative, so there is no need to give the intramuscular injection of anti-Rh antibodies (Rho(D) immune globulin).

139. For which tumors the patient with elevated CA-125 levels is at risk?

- A. Epithelial ovarian tumor
- B. Ovarian germ cell tumor
- C. Sarcoma
- D. Sex cord ovarian tumor

Answer: A

CA-125 is a tumor marker for epithelial ovarian tumors. For ovarian germ cell tumor is typical high levels of hCG, LDH or AFP. For sex cord ovarian tumors are typical high levels of estrogens or testosterone.

140. A 22-year-old G1P0 at 28 weeks gestation by LMP presents to labor and delivery complaining of decreased fetal movement. She has had no prenatal care. On the fetal monitor there are no contractions. The fetal heart rate is 150 beats per minute and reactive. There are no decelerations in the fetal heart tracing. An ultrasound is performed in the radiology department and shows a 28-week fetus with normal-appearing anatomy and size consistent with dates. The placenta is implanted on the posterior uterine wall and its margin is well away from the cervix. A succenturiate lobe of the placenta is seen implanted low on the anterior wall of the uterus. Doppler flow studies indicate a blood vessel is traversing the cervix connecting the two lobes. This patient is most at risk for which of the following?

- A. Amniotic fluid embolism
- B. Fetal exsanguination after rupture of the membranes
- C. Premature rupture of the membranes
- D. Torsion of the umbilical cord caused by velamentous insertion of the umbilical cord

Answer: B

This patient has a vasa previa. When fetal vessels cross the internal os (vasa previa), rupture of membranes may be accompanied by rupture of a fetal vessel leading to fetal exsanguination. Vasa previa does not increase the risk for placenta accreta or amniotic fluid embolism. With velamentous insertion of the cord, the umbilical vessels separate in the membranes at a distance from the placental margin which they reach surrounded only by amnion. Such insertion occurs in about 1% of singleton gestations but is quite common in multiple pregnancies. Fetal malformations are more common with velamentous insertion of the umbilical cord. An increased risk of premature rupture of membranes and of torsion of the umbilical cord has not been described in association with velamentous insertion of the cord.

141. An 18-year-old G2P1001 with the first day of her last menstrual period of May 7 presents for her first OB visit at 10 weeks. What is this patient's estimated date of delivery?

- A. December 10 of the same year
- B. December 14 of the same year
- C. February 10 of the next year
- D. February 14 of the next year

Answer: D

The expected date of delivery can be estimated by using Naegele's rule. To do this, count back 3 months and then add 7 days to the date of the first day of the last normal menstrual period.

142. Which of the following is a risk factor for bacterial vaginosis?

- A. Douching
- B. Probiotics
- C. Smoking
- D. Tight clothes

Answer: A

Risk factors include douching, new or multiple sex partners, antibiotics, and using an intrauterine device, among others. Probiotics may help prevent re-occurrence.

143. Which of the following is the most likely position of rupture of hymen due to sexual intercourse?

- A. 12 o'clock
- B. 3 o'clock
- C. 6 o'clock
- D. 9 o'clock

Answer: C

Anterolateral Tear in case of Masturbation between 11' & 1' .
Posterolateral Tear in case of sexual intercourse 5' to 7'.

144. What are the steps in staging cervical cancer?

- A. Palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, in
- B. Palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, intravenous urography, and MRI examination of the lungs and skeleton, and cervical conization.
- C. Palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, intravenous urography, and US examination of the lungs and skeleton, and cervical conization.
- D. Palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, and X-ray examination of the lungs and skeleton, and cervical conization.

Answer: D

Cervical cancer is staged by the International Federation of Gynecology and Obstetrics (FIGO) staging system, which is based on clinical examination, rather than surgical findings. It allows only these diagnostic tests to be used in determining the stage: palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, intravenous urography, and X-ray examination of the lungs and skeleton, and cervical conization.

<http://emedicine.medscape.com/article/253513-workup>

145. A 65-year-old woman presents to your office for evaluation of genital prolapse. She has a history of chronic hypertension, well controlled with a calcium channel blocker. She has had three full-term spontaneous vaginal deliveries. The last baby weighed 9 lb and required forceps to deliver the head. She says she had a large tear in the vagina involving the rectum during the last delivery. She has a history of chronic constipation and often uses a laxative to help her have a bowel movement. She has smoked for more than 30 years and has a smoker's cough. She entered menopause at age 52 but has never taken hormone replacement therapy. Which of the following factors is least important in the subsequent development of genital prolapse in this patient?

- A. Childbirth trauma
- B. Chronic constipation
- C. Chronic cough
- D. Chronic hypertension

Answer: D

All the factors mentioned in the question are commonly seen in patients with genital relaxation (with formation of an enterocele, rectocele, cystocele, or urethrocele, alone or in combination) and uterine prolapse. Undoubtedly, the most important factor is the actual quality of the tissue itself. There is a much lower incidence of uterine prolapse and enterocele formation in black and Asian patients in comparison with whites. Any factors that increase abdominal pressure can aggravate or further deteriorate the prolapse. Although the actual number of deliveries is probably not important, traumatic deliveries, especially those in which the rectal sphincter is lacerated or improperly repaired, have been associated with pelvic relaxation. Chronic hypertension is not a risk factor for genital prolapse.

146. You are treating a 31-year-old woman with danazol for endometriosis. You should warn the patient of potential side effects of prolonged treatment with the medication. When used in the treatment of endometriosis, which of the following changes should the patient expect?

- A. Heavier or prolonged periods, since danazol causes endometrial hyperplasia
- B. Lighter or absent menstruation, since danazol causes endometrial atrophy
- C. More frequent Pap smear screening, since danazol exposure is a risk factor for cervical dysplasia

- D. Occasional pelvic pain, since danazol commonly causes ovarian enlargement

Answer: B

Danazol is a progestational compound derived from testosterone that is used to treat endometriosis. It induces a pseudomenopause but does not alter basal gonadotropin levels. It appears to act as an antiestrogen and causes endometrial atrophy. Cyclic menses return almost immediately on withdrawal of danazol. It is felt that the endometrium is poorly developed with danazol use and that three menstrual cycles should be allowed to pass before conception so as to avoid a higher risk of spontaneous abortion, which could result from implantation in this poorly developed endometrium.

147. A healthy 34-year-old G1P0 patient comes to see you in your office for a routine OB visit at 12 weeks gestational age. She tells you that she has stopped taking her prenatal vitamins with iron supplements because they make her sick and she has trouble remembering to take a pill every day. A review of her prenatal labs reveals that her hematocrit is 39%. Which of the following statements is the best way to counsel this patient?

- A. Tell the patient that if she consumes a diet rich in iron, she does not need to take any iron supplements.
- B. Tell the patient that if she fails to take her iron supplements, her fetus will be anemic.
- C. Tell the patient that she is not anemic and therefore she will not need the iron supplied in prenatal vitamins.
- D. Tell the patient that she needs to take the iron supplements even though she is not anemic in order to meet the iron demands of pregnancy.

Answer: D

The amount of iron that can be mobilized from maternal stores and gleaned from the diet is insufficient to meet the demands of pregnancy. A pregnant woman with a normal hematocrit at the beginning of pregnancy who is not given iron supplementation will suffer from iron deficiency during the latter part of gestation. It is important to remember that the fetus will not have impaired hemoglobin production, even in the presence of maternal anemia, because the placenta will transport the needed iron at the expense of maternal iron store depletion. The hematocrit in pregnancy normally falls in pregnancy due to plasma volume expansion and therefore is not used as a parameter to determine when to begin iron supplementation.

148. A 26-year-old female patient complains of depression, poor sleep quality, and breast tenderness. These symptoms occur on a monthly basis, about 2 weeks before menstruation. Her symptoms greatly improve with menses. Which of the following is the most likely diagnosis in this woman?

- A. Paramenstrual syndrome
- B. Perimenstrual syndrome
- C. Postmenstrual syndrome
- D. Premenstrual syndrome

Answer: D

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Often symptoms are present for around six days. A woman's pattern of symptoms may change over time. Symptoms do not occur during pregnancy or following menopause. Antidepressants SSRIs like fluoxetine, sertraline can be used to treat severe PMS. Women with PMS may be able to take medication only on the days when symptoms are expected to occur. Although intermittent therapy might be more acceptable to some women, this might be less effective than continuous regimens.

149. A girl with normal menstruation has round ovarian mass 7 cm in diameter. Ultrasound examination of her ovaries 3 years ago was normal. Which of the following is most likely diagnosis in this patient?

- A. Benign teratoma
- B. Functional cyst
- C. Gonadoblastoma
- D. PCOS

Answer: B

The most likely diagnosis in this girl is the functional cyst. PCOS is associated with amenorrhea. Benign teratoma or genitoblastoma would be seen in a previous ultrasound examination.

150. Chlamydia is usually treated with which of the following?

- A. Amoxicillin/clavulanic acid.
- B. Doxycycline or Azithromycin
- C. Metronidazole
- D. Penicillin

Answer: B

1. Chlamydial infection can cause disease in many organ systems, including the genitourinary tract.
2. Chlamydia is usually treated with either doxycycline or azithromycin.
3. Metronidazole is a treatment for bacterial vaginosis and trichomonis.
4. Uncomplicated lower genital tract infection is typically treated with a single dose of azithromycin (1 g po) or with a 7-day regimen of doxycycline (100 mg po bid) or some fluoroquinolones (eg, levofloxacin 500 mg po once/day).

151. A 45-year-old G3P3 presents for her yearly examination. She last saw a doctor 7 years ago after she had her last child. She had three vaginal deliveries, the last of which was complicated by gestational diabetes and preeclampsia. She has not been sexually active in the past year. She once had an abnormal Pap smear for which she underwent cryotherapy. Her cycles are every 35 days and last for 7 days. She describes the flow as heavy for the first two days and occasionally passes blood clots the size of quarters. She denies any medical problems. Her family history is significant

for coronary artery disease in her dad age 65 and a maternal aunt who developed ovarian cancer at the age of 67. She is normotensive and her breast and pelvic examinations are normal. Along with a Pap smear, mammogram, fasting glucose, and lipid profile, what other screening test is recommended for this patient?

- A. CA-125
- B. Hemoglobin level
- C. Hepatitis C
- D. Thyroid stimulating hormone

Answer: B

Hemoglobin level assessment is warranted in women with excessive menstruation as described in her history. Mammography is indicated for her age. Measuring CA-125 levels has not been shown to be effective in population-based screening for ovarian cancer. Hepatitis C screening should occur in those with risk factors such as intravenous drug use, dialysis, partner with hepatitis C, multiple partners, and received blood products prior to 1990. She is not diabetic or hypertensive and has no urinary symptoms so urinalysis is not indicated. Thyroid testing is reserved for symptoms, strong family history of thyroid disease or autoimmune disease.

152. Which of the following is the correct date for screening for thalassemia or sickle cell disease in pregnant women?

- A. Blood test before 10th week
- B. Chronic villus sampling at 16th week
- C. Triple test at 16th week
- D. Ultrasound at 12th week
- E. quadruple test at 15th week

Answer: A

Sickle cell disease (SCD) and thalassaemia are inherited blood disorders. If you are a carrier of sickle cell or thalassaemia, you can pass these conditions on to your baby. All pregnant women in England are offered a blood test to find out if they carry a gene for thalassaemia, and those at high risk of being a sickle cell carrier are also offered a test for sickle cell. If the mother is found to be a carrier, screening is also offered to the father. This test should be offered before you're 10 weeks pregnant.

153. A 27-year-old sexually active female complains of numerous vesicles on the right sex lip which are itching and burning. Eruptions regularly turn up before menstruation and disappear 8-10 days later. Which of the following is the most likely diagnosis?

- A. Chlamydia infection
- B. Herpes simplex type 1
- C. Herpes simplex type 2
- D. Human papillomavirus

Answer: C

Herpes simplex virus 1 and 2 (HSV-1 and HSV-2), also known as human herpesvirus 1 and 2 (HHV-1 and HHV-2), are two members of the herpesvirus family, Herpesviridae, that infect humans. Both HSV-1 (which produces most cold sores) and HSV-2 (which produces most genital herpes) are ubiquitous and contagious. They can be spread when an infected person is producing and shedding the virus.

154. A woman on the 18th day after the 5th birth developed an acute pain in the left lower limb. Her temperature is 38.6 °C. The ultrasound examination shows no compression of the femoral vein after compression. The uterus is painless, normal size, the cervical os is closed. Which of the following is the most likely diagnosis in this woman?

- A. Acute arterial insufficiency
- B. Deep venous thrombosis of the femoral vein
- C. Septic pelvic thrombophlebitis
- D. Superficial thrombophlebitis
- E. Thrombophlebitis of the superficial veins of the thigh

Answer: B

Deep vein thrombosis (DVT), is the formation of a blood clot within a deep vein, most commonly the legs. Symptoms may include pain, swelling, redness, or warmth of the affected area. About half of cases have no symptoms. Complications may include pulmonary embolism, as a result of detachment of a clot which travels to the lungs, and post-thrombotic syndrome.

Imaging tests of the veins are used in the diagnosis of DVT, most commonly either proximal compression ultrasound or whole-leg ultrasound. Each technique has drawbacks: a single proximal scan may miss a distal DVT, while whole-leg scanning can lead to distal DVT overtreatment.

155. A 40-years-old woman comes with symptoms of pain and heavy bleeding during menses. She doesn't want to have kids in the future so she decided to do a hysterectomy. The diagnosis was confirmed by a histopathological exam of the tissue of hysterectomy which shows invasion of endometrial glands into the uterine myometrium. Which of the following could be the best non-invasive investigation to support the suspected diagnosis in this patient?

- A. Laboratory test
- B. pelvic CT
- C. pelvic MRI
- D. pelvic US

Answer: C

This patient has Adenomyosis based on the symptoms and histopathological exam. The best non-invasive investigation to support Adenomyosis is MRI (T2-weighted) with a sensitivity of 77% and specificity of 89%.

156. Which of the following is a correct dose of folic acid during pregnancy without risk factors in milligrams?

- A. 0.2
- B. 0.4
- C. 2
- D. 4

Answer: D

The U. S. Public Health Service and CDC recommend that all women of childbearing age consume 0.4 mg (400 micrograms) of folic acid daily to prevent two common and serious birth defects, spina bifida and anencephaly. All women who have already had an NTD-affected pregnancy should consume 0.4 mg (400 micrograms) of folic acid every day when not planning to become pregnant. When these women are planning to become pregnant, they should consult with their health care provider about the desirability of following the August 1991 U.S. Public Health Service guideline. The guideline called for consumption of 4 milligrams (4000 micrograms) of folic acid daily beginning one month before they start trying to get pregnant and continuing through the first three months of pregnancy. No risk factor : 0.4
Risk factor (NTD, DM) = 4

157. A 24-year-old G1P1 presents for her routine postpartum visit 6 weeks after an uncomplicated vaginal delivery. She states that she is having sleeping problems and is feeling depressed over the past 2 to 3 weeks. She reveals that she cries on most days and feels anxious about taking care of her newborn son. She denies any weight loss or gain, but states she doesn't feel like eating or doing any of her normal activities. She denies suicidal or homicidal ideation. Which of the following is true regarding this patient's condition?

- A. A history of depression is not a risk factor for developing postpartum depression.
- B. About 8% to 15% of women develop postpartum depression.
- C. Prenatal preventive intervention for patients at high risk for postpartum depression is best managed alone by a mental health professional.
- D. Young, multiparous patients are at highest risk.

Answer: B

Patients at high risk for postpartum depression often have histories of depression or postpartum depression. They are more likely to be primiparous or older; they may have had a long interval between pregnancies or an unplanned pregnancy or be without a supportive partner. Prenatal intervention must include the obstetric team, with family or peer support when possible. Postpartum depression is variable in duration, but occasionally will not resolve without hospitalization, therapy, or medication.

158. A mother delivered her first baby with cleft lip and palate. What is the percentage of recurrence for her next pregnancy?

- A. 1%
- B. 15%
- C. 20%
- D. 4%

Answer: D

Once parents have a child with a cleft lip/palate, the risk that the next child will have a recurrence of this pathology is only 2-5%. Reference: <http://cleftline.org/docs/Booklets/GEN-01.pdf>

159. In a 34-years old female after an examination with Pap smear was found ASCUS (atypical squamous cells of undetermined significance). Which of the following is the best next step for this woman?

- A. Colposcopy
- B. Cone biopsy
- C. Repeat Pap smear in 6 months
- D. do HPV test

Answer: D

Summary of Cervical Cancer Screening Results and Management for Women 30 Years of Age or Older 1) Normal Pap and Negative HPV - Rescreen in 5 years. 2) Normal Pap and Positive HPV - Repeat co-test in one year or do HPV DNA typing now 3) ASCUS Pap, No HPV Test - Repeat cytology in one year or do HPV test now 4) ASCUS Pap and Negative HPV or LSIL Pap and Negative HPV - Repeat Pap and co-test at interval as per ASCCP guidelines. 5) ASCUS Pap and Positive HPV or LSIL Pap and Positive or Unknown HPV or ASC-H Pap or HSIL Pap - Colposcopy and/or referral to gynecologist.

<https://www.cdc.gov/cancer/knowledge/provider-education/cervical/followup.htm>

160. An elderly woman is brought to your clinic for a gynecological examination by a neighbor for vaginal bleeding. She appears unkempt and frail. Her friend is concerned about abuse by the patient's family. You interview and examine the patient and make the appropriate referrals for social services. What is the common type of abuse of the elderly?

- A. Emotional
- B. Financial
- C. Neglect
- D. Physical

Answer: C

With the increasing age of the population in the U.S. elder abuse is becoming a big problem. Over 2 million elderly are mistreated annually and most cases go unreported. There are seven types of elder abuse: physical, emotional, sexual, financial exploitation, neglect, self-neglect, and miscellaneous. By far, neglect is the most common form of abuse. It most often occurs at the hands of family members and in the home of the elder. Risk factors include: caregiver stress, cognitive impairment of the patient, need for assistance with activities of daily living, conflicts within the family, and poor social support.

161. An 18-year-old G1 has asymptomatic bacteriuria (ASB) at her first prenatal visit at 15 weeks gestation. Which of the following statements is true?

- A. Fifteen percent of women develop a urinary tract infection after an initial negative urine culture.
- B. The prevalence of ASB during pregnancy may be as great as 30%.
- C. There is a decreased incidence of ASB in women with sickle cell trait.
- D. Twenty-five percent of women with ASB subsequently develop an acute symptomatic urinary infection during the same pregnancy and should be treated with antibiotics.

Answer: D

The term asymptomatic bacteriuria is used to indicate persisting, actively multiplying bacteria within the urinary tract without symptoms of a urinary infection. The reported prevalence during pregnancy varies from 2% to 7%. The highest incidence has been reported in black multiparas with sickle cell trait and the lowest incidence among white women of low parity. In women who demonstrate ASB, the bacteriuria is typically present at the time of the first prenatal visit; after an initial negative culture of the urine, fewer than 1% develop a urinary infection. If ASB is not treated during pregnancy, 25% of infected women develop an acute infection. ASB has very little, if any, effect on pregnancy outcomes, except for serious urinary tract infections. Pyelonephritis is the most common serious medical complication of pregnancy.

162. A 29-year-old woman complains of absent menstruation for a 1 year and bilateral milk discharge from the nipples when pressed, and loss of lateral visual fields. A computed tomography of the brain shows an expansion of the sella turcica. Which of the following is the most likely diagnosis in this woman?

- A. Bilateral breast cancer
- B. Functional disorder of the hypothalamic-pituitary-ovarian system
- C. Ovarian tumor
- D. Prolactinoma

Answer: D

A prolactinoma is a benign tumor (adenoma) of the pituitary gland that produces a hormone called prolactin. It is the most common type of functioning pituitary tumor. Symptoms of prolactinoma are too much prolactin in the blood (hyperprolactinemia), or those caused by pressure of the tumor on surrounding tissues. The symptoms due to a prolactinoma are broadly divided into those that are caused by increased prolactin levels or mass effect. Those that are caused by increased prolactin levels are: Amenorrhea (disappearance of ovulation periods) Galactorrhea (Milk production; infrequent in men) Loss of axillary and pubic hair Hypogonadism (Reduced function of the gonads.) Gynecomastia (an increase in male breast size) Erectile dysfunction (in males) Those that are caused by mass effect are: Bitemporal hemianopsia (due to pressure on the optic chiasm) Vertigo Nausea, vomiting

163. A 50-year-old G4P4 presents for her well-woman examination. She had one cesarean delivery followed by three vaginal deliveries. Her menses stopped 1 year ago and she occasionally still has a hot flash. She tells you that about 10 years ago she was treated with a laser conization for carcinoma in situ of her cervix. Since that time, all of her Pap tests have been normal. What recommendation should you make regarding how frequently she should undergo Pap smear testing?

- A. Every 3 months
- B. Every 3 years
- C. Every 5 years
- D. Every 6 months

Answer: C

Cervical cancer screening should begin at 21 years of age. Cervical cytology screening is recommended every 3 years for women aged 21-29 years, with either conventional or liquid-based cytology. Women aged 30 years and older who have had three consecutive cervical cytology test results that are negative for intraepithelial lesions and malignancy or test negative for the high-risk subtype of human papilloma virus may be screened every 5 years. Certain risk factors have been associated with cervical intraepithelial neoplasia (CIN) in observational studies; women with any of the following risk factors may require more frequent cervical cytology screening: HIV infection, immunosuppression (such as transplant patients), in-utero diethylstilbestrol exposure, and women previously treated for moderate to severe cervical dysplasia or cancer of the cervix. In a low risk patient screening may discontinue at age 65. In this patient with a history of carcinoma in situ of the cervix, annual screening would be recommended.

164. A 31-year-old woman presents to the physician with a grayish, foul-smelling discharge. A saline wet mount examination reveals numerous epithelial cells coated with bacteria. Which of the following is the best treatment for this woman?

- A. Ampicillin
- B. Metronidazole orally
- C. Metronidazole topically
- D. Nystatin

Answer: C

1. Bacterial vaginosis typically presents with minimal to absent vaginal inflammation and a discharge (pH >4.5) that is thin, off-white in color, and has a "fishy" odor. 2. Thin, gray-white vaginal discharge 3. "Clue cells" (vaginal epithelial cells with adherent coccobacilli) on wet mount 4. The treatment of choice for Bacterial Vaginosis in a pregnant lady is clindamycin cream (not orally) or metronidazole cream.

165. A woman is found to have a unilateral invasive vulvar carcinoma that is 3 cm in diameter but not associated with evidence of lymph node spread. Initial management should consist of which of the following?

- A. Radiation therapy
- B. Radical partial vulvectomy and bilateral inguinal lymphadenectomy
- C. Radical vulvectomy without inguinal lymphadenectomy
- D. Simple vulvectomy

Answer: B

Women who have invasive vulvar carcinoma usually are treated surgically. If the lesion is unilateral, is not associated with fixed or ulcerated inguinal lymph nodes, and does not involve the urethra, vagina, anus, or rectum, then treatment usually consists of radical vulvectomy and bilateral inguinal lymphadenectomy. If inguinal lymph nodes show evidence of metastatic disease, bilateral pelvic lymphadenectomy is usually performed. Radiation therapy, though not a routine part of the management of women who have early vulvar carcinoma, is employed (as an alternative to pelvic exenteration with radical vulvectomy) in the treatment of women who have local, advanced carcinoma.

166. A female had a gestational diabetes and was given insulin therapy. She successfully delivered a baby. Her laboratory findings are blood glucose 6.5 and HbA1C = 5.5. Which of the following is the best treatment option for this woman?

- A. Continue insulin therapy
- B. Pioglitazone
- C. Stop any treatment
- D. Switch to metformin

Answer: C

Stop any medication is an appropriate treatment woman with gestational diabetes after delivery of a baby.

167. A woman with polycystic ovarian syndrome comes for a regular check-up. Which of the followings is this woman most likely at risk?

- A. Endometrial hyperplasia
- B. Low blood pressure
- C. Ovarian cancer
- D. Weight loss

Answer: A

Polycystic ovary syndrome is a clinical syndrome characterized by mild obesity, irregular menses or amenorrhea, and signs of androgen excess (eg, hirsutism, acne). In most patients, the ovaries contain multiple cysts. Patients with PCOS are at high risk to develop endometrial hyperplasia and endometrial carcinoma due to unbalanced estrogen secretion.

168. What is the gestational age for screening group B Streptococcus?

- A. 10-15 weeks
- B. 25-30 weeks
- C. 30-32 weeks
- D. 35-37 weeks

Answer: D

- 1. Screening cultures for group B streptococcus should be performed at 36-37 weeks gestation.
- 2. Positive cases should be treated with penicillin G during labor.

Initial visit	<ul style="list-style-type: none">1. CBC2. Urinalysis3. Blood antibody and Rh typing4. Pap smear5. Gonorrhea + chlamydia screening6. RPR or VDRL7. HIV screening8. Rubella antibody titer9. Hepatitis B surface antigen
16-18 weeks	<p>Quadruple screen (Trisomies 21 + 18 + neural tube defects)</p> <ul style="list-style-type: none">1. Maternal serum alpha fetoprotein2. hCG3. Maternal serum inhibin A4. Unconjugated estriol
18-20 weeks	Ultrasound to determine GA and to survey fetal anatomy, amniotic fluid volume, and placental location.
24-28 weeks	Glucose challenge test (screen for gestational DM)
32-37 weeks	<ul style="list-style-type: none">1. <u>Group B streptococcus screening</u>2. Cervical culture for Neisseria gonorrhoeae and Chlamydia trachomatis (Only high-risk patients)

169. A lady comes with complaints of lower abdominal pain. During the physical examination, there is suprapubic and right lower quadrant tenderness and purulent vaginal discharge. Which of the following is the most likely diagnosis in this woman?

- A. Acute appendicitis
- B. Acute cervitis
- C. Acute pyelonephritis
- D. Acute salpingitis

Answer: D

Pelvic inflammatory disease (PID) refers to acute and subclinical infection of the upper genital tract in women, involving any or all of the uterus, fallopian tubes, and ovaries. Lower abdominal pain is the cardinal presenting symptom in women with PID. The abdominal pain is usually bilateral and rarely of more than two weeks' duration. On physical examination, most women with PID have abdominal tenderness on palpation, greatest in the lower quadrants, which may or may not be symmetrical. Rebound tenderness, fever, and decreased bowel sounds are usually limited to women with more severe PID. Acute cervical motion, uterine, and adnexal tenderness on bimanual pelvic examination are the defining characteristics of acute symptomatic PID. Purulent endocervical discharge and/or vaginal discharge is also common.

170. A 22-year-old G1P1 who is postpartum day 2 and is bottle-feeding complains that her breasts are very engorged and tender. She wants you to give her something to make the engorgement go away. Which of the following is recommended to relieve her symptoms?

- A. Breast binder
- B. Bromocriptine
- C. Estrogen-containing contraceptive pills
- D. Pump her breasts
- E. Use oral antibiotics

Answer: A

About 40% of women elect not to breast-feed. These women experience milk leakage, engorgement, and breast pain that begins 3 to 5 days postpartum. Ice packs applied to the breasts, a well-fitting bra or binder, and analgesics are all appropriate methods to manage engorged breasts. Bromocriptine, a drug used to lower prolactin levels and suppress lactation, is no longer recommended in postpartum women because this medication being associated with an increased risk of stroke, myocardial infarctions, seizures, and psychiatric disturbances.

171. A 25-year-old G3 at 39 weeks delivers a small-for-gestational-age infant with chorioretinitis, intracranial calcifications, jaundice, hepatosplenomegaly, and anemia. The infant displays poor feeding and

tone in the nursery. The patient denies eating any raw or undercooked meat and does not have any cats living at home with her. She works as a nurse in the pediatric intensive care unit at the local hospital. What is the most likely causative agent?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Hepatitis B
- D. Parvovirus

Answer: A

Cytomegalovirus in the mother is usually asymptomatic, but 15% of adults will have a mononucleosis-like syndrome. Maternal immunity does not prevent recurrence or congenital infection. Congenital infection includes low birth weight, microcephaly, intracranial calcifications, chorioretinitis, mental and motor retardation, sensorineural deficits, hepatosplenomegaly, jaundice, anemia, and thrombocytopenic purpura. The virus is shed in the secretions of affected individuals. Cytomegalovirus is common in day care centers and by age 2 or three children usually acquire the infection from one another and transmit it to their parents.

172. A woman comes to the office with complaints of excessive hair growth and abnormal menses. She states that her menses are irregular, and she has a severe acne on her face and shoulders. The ultrasound examination of her ovaries shows a string of pearl appearance. Which of the following is the most likely diagnosis in this patient?

- A. Cushing disease
- B. Hypothyroidism
- C. Polycystic Ovarian Syndrome
- D. Prolactinoma

Answer: C

Polycystic ovarian syndrome (PCOS), recently referred also as hyperandrogenic anovulation, is a chronic anovulation syndrome associated with androgen excess. The classic triad of PCOS is: oligomenorrhea, hirsutism, obesity. In addition to this, patients may have infertility, acne, male pattern balding or biochemically show increased androgen levels. Current recommended sonographic criteria for multifollicular ovarian morphology: 25 or more follicles per ovary (superseding the earlier Rotterdam criteria of 12 or more follicles) 14 increased ovarian size (>10 cc): less sensitive than the follicle number criteria, but has a role when image resolution does not allow accurate follicle count, e.g. transabdominal scanning, older equipment. Other morphological features include: hyperechoic central stroma, peripheral location of follicles: which can give a string of pearl appearance, follicles of similar size measuring 2-9 mm. The presence of a single PCO is sufficient to provide the diagnosis.

173. A patient with polycystic ovarian syndrome is not likely developed the following conditions?

- A. Dysmenorrhea
- B. Hirsutism
- C. Infertility
- D. Obstructive sleep apnea

Answer: A

Polycystic ovary syndrome is a clinical syndrome characterized by mild obesity, irregular menses or amenorrhea, and signs of androgen excess (eg, hirsutism, acne). In most patients, the ovaries contain multiple cysts. Patients with PCOS are at high risk to develop endometrial hyperplasia and endometrial carcinoma due to unbalanced estrogen secretion. The major features of PCOS include menstrual dysfunction, anovulation, and signs of hyperandrogenism. Other signs and symptoms of PCOS may include the following: 1. Hirsutism 2. Infertility 3. Obesity and metabolic syndrome 4. Diabetes 5. Obstructive sleep apnea. On examination, findings in women with PCOS may include the following: 1. Virilizing signs 2. Acanthosis nigricans 3. Hypertension 4. Enlarged ovaries: May or may not be present; evaluate for an ovarian mass. Lifestyle modifications are considered first-line treatment for women with PCOS. Such changes include the following: 1. Diet 2. Exercise 3. Weight loss. Pharmacologic treatments are reserved for so-called metabolic derangements, such as anovulation, hirsutism, and menstrual irregularities. First-line medical therapy usually consists of an oral contraceptive to induce regular menses.

174. While evaluating a 30-year-old woman for infertility, you diagnose a bicornuate uterus. You explain that additional testing is necessary because of the woman's increased risk of congenital anomalies in which organ system?

- A. Central nervous
- B. Hematopoietic
- C. Skeletal
- D. Urinary

Answer: D

Failed fusion of the Müllerian ducts can give rise to several types of uterine anomalies, of which bicornuate uterus is a representative type. This condition is associated with a higher risk of obstetric complications, such as an increase in the rate of second-trimester abortion and premature labor. If these pregnancies go to term, malpresentations such as breech and transverse lie are more frequent. Also, prolonged labor (probably attributed to inadequate muscle development in the uterus), increased bleeding, and a higher incidence of fetal anomalies caused by defective implantation of the placenta all occur more commonly than in normal pregnancies. An intravenous pyelogram or urinary tract ultrasound is mandatory in patients with Müllerian anomalies since approximately 30% of patients with Müllerian anomalies have coexisting congenital urinary tract anomalies. In bicornuate uterus (termed uterus bicornis unicollis), there is a double uterine cavity (bicornis) and a single cervix (unicollis) with a normal vagina.

175. A 22-year-old woman comes with nausea, vomiting, constipation, and periumbilical pain that settles in the lower right quadrant. On physical exam she has tenderness and guarding in the lower right quadrant. Urine b-hCG is negative. Which of the following is most likely diagnosis in this woman?

- A. Acute appendicitis
- B. Acute cystitis
- C. Cholecystitis
- D. Ectopic pregnancy

Answer: A

Appendicitis is inflammation of the appendix. Symptoms commonly include right lower abdominal pain, nausea, vomiting, and decreased appetite. Typical appendicitis includes several hours of generalized abdominal pain that begins in the region of the umbilicus with associated anorexia, nausea, or vomiting. The pain then "localizes" into the right lower quadrant where the tenderness increases in intensity.

176. A 16 years old girl comes to your office with a chief complaint of never having had a menstrual period. She never had a pelvic examination. Physical examination reveals the following: (blood pressure - 110/70 mm Hg, pulse 72 b/m, weight - 60kg, height - 172cm). Her axillary and pubic

hair is scant. Breasts are at Tanner stage IV. External genitalia is like in a normal female. A mass is palpable within the inguinal canal. A pelvic examination has revealed an absence of cervix with the vagina ending in a blind pouch. The uterus and ovaries are difficult to delineate. Which of the following is the most likely diagnosis?

- A. Androgen insensitivity syndrome
- B. Hypothalamic amenorrhea.
- C. Polycystic ovarian syndrome
- D. Prolactin secreting adenoma
- E. Turner syndrome

Answer: A

Androgen insensitivity syndrome (AIS), formerly known as testicular feminization, is an X-linked recessive condition resulting in a failure of normal masculinization of the external genitalia in chromosomally male individuals. Individuals with complete androgen insensitivity syndrome have female external genitalia with normal labia, clitoris, and vaginal introitus.

177. A woman has a bacterial vaginosis. Which of the following is correct for this disease?

- A. During microscopy could be seen motile protozoa
- B. During the physical examination could be seen strawberry cervix
- C. The cause is *Trichomonas vaginalis*
- D. The treatment is usually topical nystatin
- E. The vaginal pH during the disease is more than 4,5

Answer: E

1. Bacterial vaginosis is vaginitis due to a complex alteration of vaginal flora in which lactobacilli decrease and anaerobic pathogens (*Gardnerella*) overgrow. 2. Symptoms include a gray, thin, fishy-smelling vaginal discharge with pH more than 4,5 and itching. 3. Diagnosis is confirmed by testing vaginal secretions. 4. Treatment is usually with oral or topical metronidazole or topical clindamycin.

178. Which of the following is the most common malpresentation in pregnancy?

- A. Complete breech

- B. Footling breech
- C. Frank breech
- D. Kneeling breech
- E. Shoulder breech

Answer: C

Frank breech is the most common and is most suitable for vaginal delivery. Footling breech is the least common and has the highest risk of cord prolapse. Complete (20%) (Common in multis) Incomplete: Frank breech (70%) (Common in primi) Footling breech Kneeling breech

179. A 45-years-old female comes to the office with complaints of low stream void. Her medical history is full of recurrent urinary tract infections treated with multiple different antibiotics without benefit. During the physical examination vagina, vulva and cervix within normal limits. There is a moderate tenderness at the neck of the bladder. During the cystoscopy, there was found an ulcer. Which of the following is the most likely diagnosis in this woman?

- A. Candidiasis
- B. Interstitial cystitis
- C. Syphilis
- D. Urinary tract infection

Answer: B

Interstitial cystitis is a type of chronic pain that affects the bladder. The most common symptoms of IC/BPS are a suprapubic pain, urinary frequency, painful sexual intercourse, and waking up from sleep to urinate. The diagnosis is usually based on the symptoms after ruling out other conditions. Typically the urine culture is negative. During cystoscopy, 5–10% of people with interstitial cystitis are found to have Hunner's ulcers.

180. A newly married 32-year-old lady had amenorrhea for eight weeks Her urinary b-hCG is positive. She presents with lower abdominal pain and vaginal spotting for two days. Vaginal ultrasound showed an empty uterus. Which of the following is the most likely diagnosis?

- A. Complete abortion
- B. Complete vesicular mole

- C. Ectopic pregnancy
- D. Partial vesicular mole
- E. Threatened abortion

Answer: C

Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock.

181. The signs and symptoms of meningitis in an infant can be different than those in an adult. Which of the following signs and symptoms of meningitis is more helpful in an adult patient than in a 4-month-old?

- A. Brudzinski sign
- B. Jaundice
- C. Lethargy
- D. Vomiting

Answer: A

Neonatal sepsis, a clinical syndrome of systemic illness accompanied by bacteremia, often results in spread of infection to the meninges and other distant sites. The diagnosis of serious infection, including meningitis, in a neonate is difficult because the signs and symptoms are subtle and nonspecific. They include lethargy; feeding problems including abdominal distention, vomiting, and diarrhea; temperature instability; respiratory distress or apnea; and jaundice. Nuchal rigidity and Kernig and Brudzinski signs are frequently not present in the neonate with meningitis.

182. Which drug is safe for pregnant women?

- A. Chloramphenicol
- B. Cimetidine
- C. Ciprofloxacin
- D. Tetracycline

Answer: B

Cimetidine has been used safely during pregnancy to treat severe peptic ulcer disease as well as near-term for the prevention of Mendelson's syndrome. Cimetidine is only recommended for use during pregnancy when benefit outweighs the risk. Cimetidine is excreted into human milk. While the manufacturer recommends avoiding use during lactation, cimetidine is considered compatible with breastfeeding by the American Academy of Pediatrics.

Antibiotics in pregnancy

Contraindicated :

- **Tetracyclines:** Teeth and bones deformity
- **Quinolones as ciprofloxacin:** arthropathy (bone and cartilage damage)
- **Aminoglycosides:** ototoxicity
- **Sulfonamides:** neonatal jaundice-kernicterus
- **Chloramphenicol:** Gray baby syndrome

Probably safe

- **Penicillins:** (ampicillin, amoxicillin)
- **Cephalosporins**
- **Macrolides (erythromycin and azithromycin)** as alternative in penicillin-sensitive individuals **BUT** erythromycin estolate should be avoided (*risk of hepatic injury to mother*).

<https://www.drugs.com/pregnancy/cimetidine.html>

http://www.medscape.com/viewarticle/515100_5

183. A 59-year-old woman undergoes a vaginal hysterectomy. Which of the following is a most common long-term complication after this operation?

- A. Enterocoele
- B. Nonfistulous fecal incontinence
- C. Renal cell carcinoma
- D. Stress urinary incontinence
- E. Wound infection

Answer: D

Urinary incontinence and vaginal prolapse are well known adverse effects that develop with high frequency a very long time after the surgery. Typically, those complications develop 10–20 years after the surgery. For this reason, exact numbers are not known, and risk factors are poorly understood. It is also unknown if the choice of surgical technique has any effect. It has been assessed that the risk for urinary incontinence is approximately doubled within 20 years after hysterectomy. One long-term study found a 2.4 fold increased risk for surgery to correct urinary stress incontinence following hysterectomy. The risk for vaginal prolapse depends on factors such as a number of vaginal deliveries, the difficulty of those deliveries, and the type of labor. Overall incidence is approximately doubled after hysterectomy.

184. A 39-year-old G1P0 at 39 weeks gestational age is sent to labor and delivery from her obstetrician's office because of a blood pressure reading of 150/100 mm Hg obtained during a routine OB visit. Her baseline blood pressures during the pregnancy were 100 to 120/60 to 70. On arrival to labor and delivery, the patient denies any headache, visual changes, nausea, vomiting, or abdominal pain. The heart rate strip is reactive and the tocodynamometer indicates irregular uterine contractions. The patient's cervix is 3 cm dilated. Her repeat blood pressure is 160/90 mm Hg. Hematocrit is 34.0, platelets are 160,000, SGOT is 22, SGPT is 15, and urinalysis is negative for protein. Which of the following is the most likely diagnosis?

- A. Chronic hypertension
- B. Eclampsia
- C. Gestational hypertension
- D. Preeclampsia

Answer: C

Hypertension in pregnancy is defined as blood pressure of 140/90 mm Hg or greater on at least two separate occasions that are 6 hours or more apart. The presence of edema is no longer used as a diagnostic criteria because it is so prevalent in normal pregnant women. A rise in systolic blood pressure of 30 mm Hg and a rise in diastolic blood pressure of 15 mm Hg is no longer used, because women meeting this criteria are not likely to suffer adverse pregnancy outcomes if their absolute blood pressure is below 140/90 mm Hg. In gestational hypertension, maternal blood pressure reaches 140/90 mm Hg or greater for the first time during pregnancy, and proteinuria is not present. In preeclampsia, blood pressure increases to 140/90 mm Hg after 20 weeks gestation and proteinuria is present (300 mg in 24 hour or 1+ protein or greater on dipstick). Eclampsia is present when women with preeclampsia develop seizures. Chronic hypertension exists when a woman has a blood pressure of 140/90 mm Hg or greater prior to the pregnancy or before 20 weeks gestation. A woman with hypertension who develops preeclampsia is described as having chronic hypertension with superimposed preeclampsia.

185. An 18-year-old patient presents to you for evaluation because she has not yet started her period. On physical examination, she is 5 ft 7 in tall. She has minimal breast development and no axillary or pubic hair. On pelvic examination, she has a normally developed vagina. A cervix is visible. The uterus is palpable, as are normal ovaries. Which of the following is the best next step in the evaluation of this patient?

- A. Draw her blood for TSH, FSH, and LH levels
- B. Draw her blood for a karyotype
- C. Order an MRI of the brain to evaluate the pituitary gland
- D. Test her sense of smell

Answer: D

The evaluation and diagnosis of the patient with abnormal development of secondary sex characteristics is challenging as there are many potential causes. The evaluation of the patient should note the presence or absence of a uterus, breast buds and pubic and axillary hair. Testicular feminization is a syndrome of androgen insensitivity in genetic males, characterized by a normal 46, X genotype, normal female phenotype during childhood, tall stature, and "normal" breast development with absence of axillary and pubic hair. Breast development (gynecomastia) occurs in these males because high levels of circulating testosterone (which cannot act at its receptor) are aromatized to estrogen, which then acts on the breast. The external genitalia develop as those of a female because testosterone cannot masculinize them, while the M llerian structures are absent because of testicular secretion of M llerian-inhibiting factor in utero. Gonadal dysgenesis (eg, 45, X Turner syndrome) is characterized by short stature and absence of pubertal development; in these girls the ovaries are either absent or streak gonads that are nonfunctional. In either case, estrogen production is possible, and therefore isosexual pubertal development does not occur. Kallmann syndrome (hypogonadotropic hypogonadism), the most likely diagnosis in this patient, should be suspected in an amenorrheic patient of normal stature with delayed or absent pubertal development, especially when associated with the classic finding of anosmia. Testing the sense of smell with coffee or perfume is a simple way to screen for this disorder. These individuals have a structural defect of the CNS involving the hypothalamus and the olfactory bulbs (located in close proximity to the hypothalamus) such that the hypothalamus does not secrete GnRH in normal pulsatile fashion, if at all. Other causes of minimal or absent pubertal development with normal stature include malnutrition; anorexia nervosa; severe systemic disease; and intensive athletic training, particularly ballet and running.

186. A 34-years-old woman with diabetes mellitus comes for a medical consultation. She has a history of fetal death and now is pregnant at 32 weeks. She worries that the same will happen again. Which of the following would be the best management for the woman?

- A. Deliver her immediately
- B. For patients who have experienced earlier loss, frequent ultrasound is reassuring
- C. Wait until 36 weeks

- D. Weekly biophysical profile or fetal heart rate testing can be combined with Maternal kick counts in the third trimester

Answer: D

Tight control of blood glucose prior to conception can substantially reduce the risk of congenital anomalies in the fetus. Preconceptional counseling is helpful if congenital anomalies or genetic abnormalities are found. Genetic screening and detailed ultrasound can evaluate future pregnancies. In some cases, such as cord occlusion, the patient can be assured that recurrence is very unlikely. Fetal death of unknown cause is a special problem. Because a large number of etiologies of fetal demise exist, a provider has difficulty determining risk of stillbirth for any particular pregnancy. Evidence-based models such as Active Management of Risk In Pregnancy At Term (AMOR-IPAT) are being created in an effort to better estimate this risk. Although recurrent fetal loss is uncommon, patients are naturally anxious. Most patients find increased fetal surveillance with the next pregnancy reassuring, even though such testing is not clearly beneficial. The ACOG recommends antepartum testing starting at 32-34 weeks' gestation in an otherwise healthy mother with history of stillbirth. Weekly biophysical profile or fetal heart rate testing can be combined with maternal kick counts in the third trimester. For patients who have experienced earlier loss, frequent ultrasound is reassuring. Optimal management of chronic medical conditions is important prior to the next pregnancy.

187. During routine ultrasound surveillance of a twin pregnancy, twin A weighs 1200 g and twin B weighs 750 g. Hydramnios is noted around twin A, while twin B has oligohydramnios. Which statement concerning the ultrasound findings in this twin pregnancy is true?

- A. Gross differences may be observed between donor and recipient placentas.
- B. The donor twin develops hydramnios more often than does the recipient twin.
- C. The donor twin is more likely to develop widespread thromboses.
- D. The donor twin usually suffers from a hemolytic anemia.

Answer: A

In the twin-to-twin transfusion syndrome, the donor twin is always anemic, owing not to a hemolytic process but to the direct transfer of blood to the recipient twin, who becomes polycythemic. The recipient may suffer thromboses secondary to hypertransfusion and subsequent hemoconcentration. Although the donor placenta is usually pale and somewhat atrophied, that of the recipient is congested and enlarged. Hydramnios can develop in either twin, but is more frequent in the recipient because of circulatory overload. When hydramnios occurs in the donor, it is owing to congestive heart failure caused by severe anemia.

188. Which of the following is the absolute contraindication for the intrauterine device?

- A. Active PID
- B. Coagulation abnormality
- C. History of recurrent abortions
- D. Polycystic ovary syndrome

Answer: A

Absolute contraindications for IUD use include the following:

- Pregnancy
- Significantly distorted uterine anatomy
- Unexplained vaginal bleeding concerning for pregnancy or pelvic malignancy
- Gestational trophoblastic disease with persistently elevated beta-human chorionic gonadotropin levels
- Ongoing pelvic infection

<http://emedicine.medscape.com/article/1998022-overview>

189. One of your patients with polycystic ovarian syndrome presents to the emergency room complaining of prolonged, heavy vaginal bleeding. She is 26 years old and has never been pregnant. She was taking birth control pills to regulate her periods until 4 months ago. She stopped taking them because she and her spouse want to try to get pregnant. She thought she might be pregnant because she had not had a period since her last one on the birth control pills 4 months ago. She started having vaginal bleeding 8

days ago. She has been doubling up on super absorbing sanitary napkins 5 to 6 times daily since the bleeding began. On arrival at the emergency room, the patient has a supine blood pressure of 102/64 mm Hg with a pulse of 96 beats per minute. Upon standing, the patient feels light-headed. Her standing blood pressure is 108/66 mm Hg with an increase in her pulse to 126 beats per minute. While you wait for lab work to come back, you order intravenous hydration. After 2 hours, the patient is no longer orthostatic. Her pregnancy test comes back negative, and her Hct is 31%. A transvaginal ultrasound showed an atrophic appearing endometrial stripe. She continues to have heavy bleeding. Which of the following is the best next step in the management of this patient?

- A. Administer a blood transfusion to treat her severe anemia.
- B. Administer high-dose estrogen therapy.
- C. Perform a dilation and curettage.
- D. Send her home with a prescription for iron therapy.

Answer: B

The transvaginal ultrasound helps to direct the next step in the care of this patient. Her endometrial stripe is thin suggesting that she has shed her endometrium to its basalis layer. In women who have suffered heavy and acute bleeding and have an atrophic endometrium, 25 mg of conjugated estrogen should be administered every 4 hours until the bleeding subsides. Estrogen will help stop the bleeding by rebuilding the endometrium and stimulating clotting at the capillary level. Since this patient's bleeding is due to an atrophic endometrium, estrogen therapy is the preferred treatment. Had the transvaginal ultrasound shown a thickened endometrial stripe, hysteroscopy and D&C is indicated as it will stop the bleeding more rapidly than medical treatment. In older women, a D&C might be helpful in obtaining tissue for pathology to rule out endometrial cancer. In this young patient who is resuscitated and stabilized with intravenous fluids, there is no indication for a blood transfusion as long as the bleeding abates. Iron therapy alone would not be adequate for this patient; the bleeding must be stopped first. Antiprostaglandins have no role in curtailing hemorrhage in a woman suffering from anovulation. They have been used with some success in ovulatory women who have heavy cycles or in women with menorrhagia caused by use of the intrauterine device. It is thought that prostaglandin synthetase inhibitors reduce the amount of bleeding by promoting vasoconstriction and platelet aggregation.

190. A 28-year-old nulligravid patient complains of bleeding between her periods and increasingly heavy menses. Over the past 9 months a trial of oral contraceptives and antiprostaglandins have failed to decrease the abnormal, heavy bleeding. Which of the following options is most appropriate at this time?

- A. Perform a hysterectomy.
- B. Perform endometrial ablation.
- C. Perform hysteroscopy.
- D. Treat with a GnRH agonist.

Answer: C

In patients with abnormal bleeding who are not responding to standard therapy, hysteroscopy should be performed. Hysteroscopy can rule out endometrial polyps or small fibroids, which, if present, can be resected. In patients with heavy abnormal bleeding who no longer desire fertility, an endometrial ablation may be performed. If a patient has completed childbearing and is having significant abnormal bleeding, a hysteroscopy, rather than a hysterectomy, would still be the procedure of choice to rule out easily treatable disease. Treatment with a GnRH agonist would induce a menopausal state and only temporarily relieve symptoms.

191. Which of the following medications is used to prevent the transmission of Group B streptococcus (GBS) to the infant during labor?

- A. Azithromycin
- B. Penicillin
- C. Pyrimethamine
- D. Sulfadiazine

Answer: B

1. **Bacterial infections** can affect pregnant women from implantation of the fertilized ovum through the time of delivery and peripartum period. They may also affect the fetus and newborn.

2. **Group B Streptococcus** (GBS; *Streptococcus agalactiae*) is the most common cause of life-threatening infections in newborns and can also affect the mother.

CDC recommendations

1. At 35-37 weeks gestation, all pregnant women should undergo screening with a vaginal and rectal swab for culture.

2. If the culture result is positive, the woman should be treated during labor

Treatment

1. During labor and until delivery, IV penicillin G or ampicillin

2. In penicillin-allergic patients at low risk for anaphylaxis, IV cefazolin; in those at high risk for anaphylaxis, IV clindamycin or erythromycin

3. The neonate must be carefully observed for signs and symptoms of disease

192. How many Barr bodies in XXX female?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

In humans with more than one X chromosome, the number of Barr bodies visible at interphase is always one fewer than the total number of X chromosomes. For example, men with Klinefelter syndrome (47,XXY karyotype) have a single Barr body, whereas women with a 47,XXX karyotype have two Barr bodies.

193. A 21-year-old G2P1 at 25 weeks gestation presents to the emergency room complaining of shortness of breath. She reports a history of asthma and states her peak expiratory flow rate (PEFR) with good control is usually around 400. During speaking the patient has to stop to catch her breath between words; her PEFR is 210. An arterial blood gas is drawn and oxygen

therapy is initiated. She is afebrile and on physical examination expiratory wheezes are heard in all lung fields. Which of the following is the most appropriate next step in her management?

- A. Antibiotics
- B. Chest x-ray
- C. Inhaled β -agonist
- D. Intravenous corticosteroids

Answer: C

Inhaled β -agonists are the primary treatment for an acute asthma exacerbation. Intravenous steroids should be given if the exacerbation is severe, if the patient is currently taking oral steroids, or if the response to bronchodilator therapy is incomplete or poor. Antibiotics are used for patients with fever, leukocytosis, or evidence of infection. A febrile patient should have a chest x-ray to rule out pneumonia. Methylxanthines are not used for acute asthma exacerbations.

194. A postmenopausal lady comes with complaints of pain during walking, sitting, or sexual intercourse. On examination there was cystic nodule in her labia majora. Which of the followings is most likely diagnosis in the woman?

- A. Bartholin carcinoma
- B. Bartholin cyst
- C. Cervical cancer
- D. Vaginal cancer

Answer: B

A Bartholin's cyst occurs when a Bartholin's gland is blocked and the gland becomes inflamed. Sizes range from that of a pea to that of an egg and form just within each side of the lower part of the opening of the vagina. An abscess may form if the cyst becomes infected. In this case it often becomes red and painful when touched. Most Bartholin's cysts do not cause any symptoms, although some may cause pain during walking, sitting, or sexual intercourse (dyspareunia). They are usually between 1 and 4 cm, and are located just medial to the labia minora. Most Bartholin's cysts only affect the left or the right side (unilateral). Small cysts are usually not painful, but very large cysts can cause significant pain.

195. A female comes to gynecological clinic with complaints of postcoital bleeding. Which of the following is most likely the cause of her symptoms?

- A. Cervix
- B. Uterus
- C. Vagina
- D. Vulva

Answer: A

Postcoital bleeding refers to spotting or bleeding unrelated to menstruation that occurs during or after sexual intercourse. It can be a sign of serious underlying pathology and is usually alarming for patients. Cervical cancer — The most serious cause of postcoital bleeding is cervical cancer. About 11 percent of women with cervical cancer present with postcoital bleeding (range 0.7 to 39 percent). <https://www.uptodate.com/contents/postcoital-bleeding-in-women>

196. A 24-year-old woman has a marked increase in the size of her uterus between 26 and 30 weeks of gestation. Ultrasonography shows a marked increase in the amount of amniotic fluid; the fetus is normal in size for gestational age. Which of the following is the most likely diagnosis in the fetus?

- A. Congenital heart disease
- B. Duodenal atresia
- C. Erythroblastosis fetalis
- D. Horseshoe kidney
- E. Neural tube defect

Answer: B

Duodenal atresia is the most common type of congenital small bowel obstruction. Prenatal diagnosis is usually performed in the second half of pregnancy. The ultrasound diagnosis relies on the detection of the classic "double-bubble" sign which represents the dilated stomach and the duodenum. This sign is due to the simultaneous distention of the stomach and the first portion of the duodenum. A stricture between the two "cysts" can be seen with accentuation of the peristalsis and polyhydramnios.

197. A 28-year-old G1 presents to your office at 8 weeks gestation. She has a history of diabetes since the age of 14. She uses insulin and denies any complications related to her diabetes. Which of the following is the most common birth defect associated with diabetes?

- A. Anencephaly
- B. Encephalocele
- C. Meningomyelocele
- D. Ventricular septal defect

Answer: D

The incidence of major malformations in women with diabetes is 5% to 10%. It is believed that they are a consequence of poorly controlled diabetes in the preconception and early pregnancy period. Glycosylated hemoglobin (Hgb A1c) level correlates to glycemic control and the higher the level of Hgb A1c, the poorer the control and the greater the risk for major congenital anomalies. A hemoglobin A1c level greater than 10.6 has a 25% risk of fetal malformations. The most common single organ system anomalies are cardiac (38%), musculoskeletal (15%), and central nervous system (10%). Sacral agenesis is a rare malformation seen commonly in severely diabetic women.

198. A woman delivers a 7-lb male infant at 40 weeks without any complications. On day 3 of life, the infant develops respiratory distress, hypotension, tachycardia, listlessness, and oliguria. What is the most likely cause of the infant's illness?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Hepatitis B
- D. Herpes simplex

Answer: B

Early-onset group B streptococcus disease occurs within 1 week of birth. Signs of the disease include respiratory distress, apnea, and shock. Late-onset disease usually occurs after 7 days and manifests as meningitis. Listeriosis during pregnancy can be asymptomatic or cause a febrile illness that is confused with influenza, pyelonephritis, or meningitis. *Listeria monocytogenes*, the causative bacteria is usually acquired through food-borne transmission from manure-contaminated cabbage, pasteurized milk, and fresh Mexican-style cheeses. Fetal infection is characterized by granulomatous lesions with microabscesses. Early onset neonatal sepsis is a common manifestation of listeriosis during pregnancy, and late onset listeriosis occurs after 3 to 4 weeks as meningitis, which is similar to group B streptococci. However, listeriosis infection is much less common.

199. A 36-year-old G0 who has been epileptic for many years is contemplating pregnancy. She wants to stop taking her phenytoin because she is concerned about the adverse effects that the medication may have on her unborn fetus. She has not had a seizure in the past 5 years. Which of the following is the most appropriate statement to make to the patient?

- A. Babies born to epileptic mothers have an increased risk of structural anomalies even in the absence of anticonvulsant medications.
- B. She should discontinue her phenytoin because it is associated with a 1% to 2% risk of spina bifida.
- C. She should see her neurologist to change from phenytoin to valproic acid because valproic acid is not associated with fetal anomalies.
- D. Vitamin C supplementation reduces the risk of congenital anomalies in fetuses of epileptic women taking

Answer: A

Offspring of women with epilepsy have 2 to 3 times the risk of congenital anomalies even in the absence of anticonvulsant medications, because seizures cause a transient reduction in uterine blood flow and fetal oxygenation. When anticonvulsant medications are used, pregnant women have an even greater risk of congenital malformations. It is recommended that women undergo a trial of being weaned off their medications prior to becoming pregnant. If antiseizure medications must be used, mono-therapy is preferred to minimize the risk to the fetus, since the incidence of fetal anomalies increases as additional anticonvulsants are consumed. Many anticonvulsants have been found to impair folate metabolism, and folate supplementation in pregnancy has been associated with a decreased incidence of congenital anomalies in epileptic women taking antiseizure medications. Fetal exposure to valproic acid has been associated with a 1% to 2% risk of spina bifida.

200. A 40-year-old G3P2 obese patient at 37 weeks presents for her routine OB visit. She has gestational diabetes that is controlled with diet. She reports that her fasting and postprandial sugars have all been within the normal range. Her fetus has an estimated fetal weight of 6S lb by Leopold maneuvers. Which of the following is the best next step in her management?

- A. Administration of insulin to prevent macrosomia
- B. Cesarean delivery at 39 weeks to prevent shoulder dystocia
- C. Induction of labor at 38 weeks
- D. Kick counts and routine return OB visit in 1 week

Answer: D

In general, women with gestational diabetes, who do not require insulin, seldom need early delivery or other interventions. There is no consensus on whether antepartum fetal testing is necessary in women with well-controlled gestational diabetes. Antepartum fetal testing is recommended for women with preexisting diabetes mellitus and those who require insulin therapy. There is no good evidence to support routine delivery before 40 weeks when glucose control is good and no other complications supervene. Cesarean delivery may be considered in women with gestational diabetes if the estimated fetal weight is 4500 g or more. Insulin therapy is indicated if diet cannot keep fasting glucose below 105 and 2-hour values below 120.

201. A woman presents with severe pain with menses. Ultrasound examination shows bilateral hypoechogenic ovarian cysts. She reports feeling pain with defecation and intercourse. Which of the following is the most likely diagnosis in this woman?

- A. Endometriosis
- B. Ovarian torsions
- C. Polycystic ovarian syndrome
- D. Simple cysts

Answer: A

This woman most likely has endometriosis based on the diagnosis and ultrasound examination. Endometriosis is a condition in which the layer of tissue that normally covers the inside of the uterus grows outside of it. Most often this is on the ovaries, fallopian tubes, and tissue around the uterus and ovaries; however, in rare cases it may also occur in other parts of the body. Pain and infertility are common symptoms, although 20-25% of women are asymptomatic. The most accurate test for this disease is laparoscopy with histologic confirmation.

202. A female patient can't get pregnant for 3 years. Recently she has complaints of bilateral breast clear discharge. Which of the following is the most likely diagnosis?

- A. Hyperprolactinemia
- B. Infertility
- C. Kallmann syndrome
- D. Polycystic ovary syndrome

Answer: A

A prolactinoma is a benign tumor (adenoma) of the pituitary gland that produces a hormone called prolactin. It is the most common type of functioning pituitary tumor. Symptoms of prolactinoma are too much prolactin in the blood (hyperprolactinemia), or those caused by the pressure of the tumor on surrounding tissues. The symptoms due to a prolactinoma are broadly divided into those that are caused by increased prolactin levels or mass effect. Amenorrhea (disappearance of ovulation periods) Galactorrhea (Milk production; infrequent in men) Loss of axillary and pubic hair Hypogonadism (Reduced function of the gonads.) Gynecomastia (an increase in male breast size) Erectile dysfunction (in males)

203. How to obtain a Pap smear?

- A. 3 specimens from internal canal
- B. One specimen from cervical os
- C. Three specimens from cervical os
- D. Two specimens from different sites

Answer: B

The health care worker begins by inserting a speculum into the woman's vagina, which spreads the vagina open and allows access to the cervix. The health care provider then collects a sample of cells from the outer opening or os of the cervix by scraping it with an Aylesbury spatula. An endocervical brush is rotated in the central opening of the cervix. The cells are placed on a glass slide and taken to the laboratory to be checked for abnormalities. A plastic-fronded broom is sometimes used in place of the spatula and brush. The broom is not as good a collection device, since it is much less effective at collecting endocervical material than the spatula and brush. The broom is used more frequently with the advent of liquid-based cytology, although either type of collection device may be used with either type of cytology. <http://www.cytopathology.org/specimen-collection-adequacy-requisition/>
<http://www.cytopathology.org/specimen-collection-adequacy-requisition/>
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204. Regarding external cephalic version (ECV) which of the following is contraindicated?

- A. 34 weeks' gestation
- B. Maternal age of 35
- C. Maternal hypertension
- D. Polyhydramnios

Answer: A

1. **External cephalic version (ECV)** is a procedure that externally rotates the fetus from a breech presentation to a cephalic presentation.
2. External cephalic version can be attempted on fetuses that are detected before the onset of labor and after 37 weeks' gestation.
3. Version before 37 weeks is not recommended because of the risk that the fetus may revert to a breech presentation before delivery and the risk of delivery of a premature infant.
4. Successful version of a breech into cephalic presentation allows women to avoid cesarean delivery, which is currently the largest contributing factor to the incidence of postpartum maternal morbidity.
5. Contraindications to ECV exist either when the procedure may put the fetus in jeopardy or when the procedure is very unlikely to succeed.
6. Clearly, if cesarean delivery is indicated for reasons other than breech presentation, ECV is contraindicated.
7. Placenta previa or abruptio placentae, nonreassuring fetal status, intrauterine growth restriction in association with abnormal umbilical artery Doppler index, isoimmunization, severe preeclampsia, recent vaginal bleeding, and significant fetal or uterine anomalies are also contraindications for ECV.
8. Other contraindications to ECV include ruptured membranes, fetus with a hyperextended head, and multiple gestations, although ECV may be considered for a second twin after delivery of the first.
9. Relative contraindications include maternal obesity, small for gestational age fetus (less than 10%), and oligohydramnios because they make successful ECV less likely.
10. Previous uterine scar from cesarean delivery or myomectomy may also be a relative contraindication for ECV.

205. A 18-year-old female presents to the physician for delayed onset of menstruation. The patient is in the 25th percentile for weight and 5th percentile for height. On physical exam, her temperature is 37.0C, blood pressure is 100/70 mmHg, pulse is 68/min, and respirations are 13/min. The patient has a short neck and wide torso. She has Tanner stage I breast development and pubic hair with normal external female genitalia. On bimanual exam, the vagina is of normal length and the cervix is palpable. Which of the following is the most accurate test to diagnose this condition?

- A. Buccal smear for Barr bodies
- B. Karyotype analysis
- C. Serum FSH and LH levels
- D. Serum testosterone level

Answer: B

This patient presents with short stature, short neck, wide torso, delayed onset of menstruation, and absent secondary sexual characteristics, suggesting a diagnosis of Turner syndrome (45, X). The most accurate test to diagnose Turner syndrome is karyotype analysis. One of the manifestations of Turner syndrome is primary hypogonadism, in which the ovaries consist only of small amounts of connective tissue and a few atretic follicles ("streak ovaries"). This gonadal dysgenesis presents in adolescent patients with primary amenorrhea and absent thelarche. Other characteristic physical exam findings include a webbed neck, short stature, and a broad chest with wide spaced nipples. All adolescent patients with primary amenorrhea and suspicious physical exam findings should be tested for Turner syndrome with karyotype analysis, the most accurate test to diagnose the condition.

206. A 32-year-old woman in her third trimester presents with painless and profuse bright red vaginal bleeding. Pelvic examination is deferred. Transvaginal ultrasonography reveals an abnormally positioned placenta. Which of the following is the most likely diagnosis?

- A. Abruptio placentae
- B. Bloody show
- C. Placenta accreta
- D. Placenta previa
- E. Vasa previa

Answer: D

Placenta praevia is when the placenta attaches itself inside the uterus but near or over the cervical opening. Symptoms include vaginal bleeding in the second half of pregnancy. The bleeding is bright red and tends not to be associated with pain. Complications may include placenta accreta, dangerously low blood pressure, or bleeding after delivery. Complications for the baby may include fetal growth restriction. Risk factors include pregnancy at an older age and smoking as well as prior cesarean section, labor induction, or termination of pregnancy. Diagnosis is by ultrasound. It is classified as a complication of pregnancy. An important thing to note is that vaginal examination is contraindicated in cases of placenta previa

207. Which of the following is thalidomide adverse effect in pregnancy?

- A. Anencephaly
- B. Autism
- C. Coarctation of aorta
- D. Limb defect

Answer: D

Thalidomide causes birth defects the most serious is limb defect. The FDA and other regulatory agencies have approved marketing of the drug only with an auditable risk evaluation and mitigation strategy that ensures that people using the drug are aware of the risks and avoid pregnancy; this applies to men and women both, as the drug can be transmitted in sperm.

208. The newborn was born at home and has puffy, tense eyelids; red conjunctivae; a copious amount of purulent ocular discharge; and chemosis 2 days after birth. Which of the following is the most likely diagnosis?

- A. Chemical conjunctivitis
- B. Dacryocystitis
- C. Gonococcal ophthalmia
- D. Pneumococcal ophthalmia

Answer: C

The time of onset of symptoms is somewhat helpful in the diagnosis of ophthalmia neonatorum. Chemical conjunctivitis is a self-limited condition that presents within 6 to 12 hours of birth and lasts for the first day or so of life; it is a consequence of ocular silver nitrate (no longer available in the United States). As most nurseries use erythromycin prophylaxis now, chemical conjunctivitis is less common. Both of these ocular medications prevent gonococcal (GC) conjunctivitis. GC conjunctivitis has its onset within 2 to 5 days after birth and is the most serious of the bacterial infections. Prompt and aggressive topical treatment and systemic antibiotics are indicated to prevent serious complications such as corneal ulceration, perforation, and resulting blindness. Parents should be treated to avoid the risk to the child of reinfection. Chlamydial conjunctivitis occurs 5 to 14 days after birth; to avoid the risk of chlamydial pneumonia, treatment in an infant with conjunctivitis is with systemic antibiotics (parents, too, require treatment). However, asymptomatic infants born to chlamydia-positive mothers are not routinely treated with oral antibiotics at birth as prophylaxis, but rather watched closely for signs of infection, due to an increased incidence of hypertrophic pyloric stenosis among neonates having received erythromycin.

209. Which of the following is the most common symptom of placenta previa?

- A. Abdominal pain
- B. Back pain
- C. Uterine tenderness.
- D. Vaginal Bleeding

Answer: D

1. Placenta previa is an obstetric complication that classically presents as painless vaginal bleeding in the third trimester secondary to an abnormal placentation near or covering the internal cervical os.
2. The most common symptom of placenta previa is vaginal bleeding that is bright red and not associated with abdominal tenderness or pain, especially in the third trimester of pregnancy.
3. Ultrasound is the method of choice for diagnosis.
4. Pelvic examination is contraindicated in any patient with antepartum hemorrhage until placenta previa is ruled out by ultrasound.
5. The management of placenta previa depends on the gestational age of the fetus and the severity of the bleeding.

210. Which of the following is absolute contraindication for assistant delivery by forceps?

- A. Cephalopelvic disproportion
- B. Face presentation
- C. History of cesarean section
- D. Premature rupture of membranes

Answer: A

Contraindications

The following are contraindications to forceps-assisted vaginal deliveries:

- Any contraindication to vaginal delivery (see Normal Labor and Delivery)
- Inability to obtain adequate verbal consent
- A cervix that is not fully dilated or retracted
- Inability to determine the presentation and fetal head position
- Inadequate pelvic size
- Confirmed cephalopelvic disproportion
- Unsuccessful trial of vacuum extraction (relative contraindication)
- Absence of adequate anesthesia or analgesia (relative contraindication)
- Inadequate facilities and support staff
- An insufficiently experienced operator

Reference: <http://emedicine.medscape.com/article/1848372-overview#a5>

211. A 27-year-old woman at 32 weeks of pregnancy comes to the emergency department with complaints of sudden water flow from the vagina. She reports that the fluid is a pale yellow color and denies the presence of mucus or blood. External fetal monitoring reveals a reactive fetal heart tracing and no uterine contractions. Speculum exam reveals a closed cervical os with a pool of fluid in the vaginal vault. Which of the following is the best next step for this woman?

- A. Nitrazine test
- B. Sterile speculum exam
- C. Ultrasound
- D. Vaginal exam

Answer: A

Premature rupture of membranes (PROM), or pre-labor rupture of membranes, is a condition that can occur in pregnancy. It is defined as rupture of membranes (breakage of the amniotic sac), commonly called breaking of the mother's water(s), more than 1 hour before the onset of labor. To know for sure if a woman has experienced premature rupture of membranes (PROM), a health care clinician must prove that (1) the fluid leaking from the vagina is amniotic fluid, and (2) that labor has not yet started. To do this, a health care clinician will take a medical history, do a gynecological exam using a sterile speculum, and ultrasound. Nitrazine test: A sterile cotton swab is used to collect fluid from the vagina and place it on nitrazine (phenolphthazine) paper. Amniotic fluid is mildly basic (pH 7.1 - 7.3) compared to normal vaginal secretions which are acidic (pH 4.5 - 6). Basic fluid, like amniotic fluid, will turn the nitrazine paper from orange to dark blue.

212. Which of the following is the drug of choice for treatment of intrahepatic cholestasis in pregnancy?

- A. Antihistamines
- B. Cholestyramine
- C. Dexamethasone
- D. Ursodeoxycholic acid

Answer: D

Intrahepatic cholestasis of pregnancy (ICP), also known as obstetric cholestasis, cholestasis of pregnancy, jaundice of pregnancy, and prurigo gravidarum, is a medical condition in which cholestasis occurs during pregnancy. Upon diagnosis, many providers will prescribe Ursodeoxycholic Acid. While there is no cure for ICP, and no way to guarantee a successful outcome, studies have shown a slightly better fetal and maternal outcome from administration of Ursodeoxycholic Acid, whereas Cholestyramine appears to only relieve itching.

213. A 29-year-old female with lower abdominal pain, fever, chills, dysuria, cervical motion tenderness, and adnexal tenderness. Which of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Gonococcal urethritis
- C. Herpes simplex infection
- D. Pelvic inflammatory disease

Answer: D

1. Pelvic inflammatory disease (PID) is an infectious and inflammatory disorder of the upper female genital tract, including the uterus, fallopian tubes, and adjacent pelvic structures.
2. Organism: Most commonly caused by Chlamydia trachomatis D and K and/or Neisseria gonorrhea.
3. Risk factors □: multiple sexual partners, unprotected intercourse, prior PID, douching, young age at first intercourse
4. Symptoms: Lower abdominal pain starting within days of menses, nausea, vomiting, dysuria; purulent cervical discharge, abdominal tenderness, fever, cervical motion tenderness, adnexal tenderness, possible abdominal guarding
5. The diagnosis of acute PID is primarily based on historical and clinical findings.
6. Pregnancy test is the best initial test.
7. Laparoscopy is the most accurate test
8. Treatment: Ceftriaxone or cefoxitin plus doxycycline for 2–3 weeks.

214. Which of the following oral drugs is the safest during pregnancy?

- A. Acarbose

- B. Metformin
- C. Pioglitazone
- D. Sitagliptin

Answer: B

Traditionally, insulin has been the gold standard in the management of Type 2 diabetes in pregnancy and gestational diabetes. The evidence of some studies supports the use of glyburide and metformin in the management of Type 2 diabetes and gestational diabetes with no increased risk of neonatal hypoglycemia or congenital anomalies. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664692/>

215. Which of the following is the most common ovarian cyst?

- A. Corpus luteum cyst
- B. Follicular cyst
- C. Nodular cyst
- D. Theca lutein cyst

Answer: B

Functional cysts form as a normal part of the menstrual cycle. There are several types of cysts: Follicular cyst, the most common type of ovarian cyst. In menstruating women, a follicle containing the ovum, an unfertilized egg, will rupture during ovulation. If this does not occur, a follicular cyst of more than 2.5 cm diameter may result. Corpus luteum cysts appear after ovulation. The corpus luteum is the remnant of the follicle after the ovum has moved to the fallopian tubes. This normally degrades within 5 to 9 days. A corpus luteum that is more than 3 cm is defined as cystic. Theca lutein cysts occur within the thecal layer of cells surrounding developing oocytes. Under the influence of excessive hCG, thecal cells may proliferate and become cystic. This is usually on both ovaries

216. A 33-years-old woman at 34 weeks of pregnancy. Over the past 2 days, she has been complaining of a headache, dizziness, feelings of heaviness in the field of the head, visual disturbances. She has a swelling of both legs. Her blood pressure is - 160/120 mm Hg, heart rate - 88 per minute. In the general analysis of urine during the day, increasing proteinuria - up to 3.2 g / l. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Hypertensive crisis
- C. Preeclampsia of moderate severity
- D. Severe preeclampsia

Answer: D

Pre-eclampsia (PE) is a disorder of pregnancy characterized by the onset of high blood pressure and often a significant amount of protein in the urine. The condition begins after 20 weeks of pregnancy. In severe disease there may be red blood cell breakdown, a low blood platelet count, impaired liver function, kidney dysfunction, swelling, shortness of breath due to fluid in the lungs, or visual disturbances. Pre-eclampsia increases the risk of poor outcomes for both the mother and the baby. If left untreated, it may result in seizures at which point it is known as eclampsia.

Preeclampsia with severe features is defined as the presence of one of the following symptoms or signs in the presence of preeclampsia :

SBP of 160 mm Hg or higher or DBP of 110 mm Hg or higher, on two occasions at least 4 hours apart while the patient is on bed rest (unless antihypertensive therapy has previously been initiated).

Impaired hepatic function as indicated by abnormally elevated blood concentrations of liver enzymes (to double the normal concentration), severe persistent upper quadrant or epigastric pain that does not respond to pharmacotherapy and is not accounted for by alternative diagnoses, or both.

Progressive renal insufficiency (serum creatinine concentration >1.1 mg/dL or a doubling of the serum creatinine concentration in the absence of other renal disease).

New onset cerebral or visual disturbances.

Pulmonary edema.

Thrombocytopenia (platelet count $<100,000/\mu\text{L}$).

217. Which of the following is the treatment of choice for an infertile women with polycystic ovary syndrome ?

- A. Clomiphene citrate
- B. Eflornithine
- C. Metformin
- D. Spironolactone

Answer: A

1. **Polycystic ovary syndrome (PCOS)** is the most common cause of infertility in women.
2. The clinical triad of polycystic ovarian disease (PCOD) is amenorrhea, hirsutism and obesity.
3. It is characterized by anovulation, signs of androgen excess and ovarian cysts.
4. Examinations usually reveals hirsutism, obesity, male pattern baldness and increased acne.
5. **Clomiphene citrate or human menopausal gonadotropin (HMG) is the treatment of choice for infertility.**
6. **Metformin** is indicated in polycystic ovarian syndrome patients with impaired glucose tolerance. It helps in preventing type 2 diabetes mellitus.

218. Which of the following is an appropriate diagnosis for women with menses every 15 days?

- A. Hypermenorrhea
- B. Menometrorrhea
- C. Oligomenorrhea
- D. Polymenorrhea

Answer: D

Polymenorrhea is the medical term for cycles with intervals of 21 days or fewer. Polymenorrhea: Frequent menstruation (< 21-day cycle); anovular
Reference: First Aid USMLE Step 2 CK 2014, page 370

219. A 25-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge.

Which of the following is the treatment of choice for this patient?

- A. Azithromycin for the patient and her sexual partner.
- B. Fluconazole for the patient only.
- C. Oral metronidazole for the patient and her sexual partner.
- D. Oral metronidazole for the patient.

Answer: C

Trichomonas vaginalis

Transmission :Sexual (cannot exist outside human because it cannot form cysts)

Treatment: Metronidazole for patient and partner (prophylaxis)

Characteristics	Gardnerella vaginalis	Trichomonas vaginalis	Candida albicans
<u>Physical examination</u>	Mild vaginal inflammation	Vaginal and cervical inflammation, cervical petechiae	Significant vaginal inflammation
<u>Discharge</u>	Thin, white, fishy odor	Malodorous, frothy, greenish	Thick, white, "cottage cheese" like
<u>Wet mount (saline)</u>	Clue cells	Motile trichomonads	Normal
<u>Wet mount (KOH)</u>	Fishy odor	Possible fishy odor	Pseudohyphae
<u>Vaginal pH</u>	4.5 (high)	4.5 (high)	3.5-4.5 (normal)
<u>Treatment</u>	Metronidazole	Metronidazole (also treat partner)	Topical clotrimazole, miconazole, or nystatin, or oral fluconazole (single dose)

220. A 38-year-old G6P4 undergoes a primary cesarean delivery under regional analgesia for malpresentation of twins at 37 weeks. Immediately after the delivery of the placenta, the anesthesiologist notes maternal seizure activity with profound hypoxia and hypotension and intubates the patient and provides circulatory support with vasopressors. Massive hemorrhage from the surgical site ensues and the patient is given uterotonic agents and blood products. Which of the following is most likely cause of her hemorrhage?

- A. Amniotic fluid embolism
- B. Halogenated anesthetic agent
- C. Placenta accreta
- D. Severe preeclampsia with HELLP

Answer: A

Amnionic fluid embolism is complex disorder characterized by abrupt onset of maternal hypoxia, hypotension and disseminated intravascular coagulopathy. Amnionic fluid enters the maternal circulation from breach in the normal maternal-fetal physiological barriers. This typically happens with labor and delivery and cesarean delivery offers ample opportunity. The typical clinical presentation is dramatic with a mother either postdelivery or in the late stages of labor gasping for air, suffering seizures from hypoxia then cardiopulmonary collapse followed by massive hemorrhage from consumptive coagulopathy and ultimately death given the quickness of events. Immediate support with oxygenation through intubation and circulatory support and blood products is vital. Profound neurological impairment is common in survivors. While halogenated anesthetic agents and multiple gestation can cause uterine atony leading to hemorrhage and while placenta accreta can also be a cause of hemorrhage, these are not the culprits in this drastic presentation.

221. Which of the following is an absolute contraindication to the use of oral contraceptive pills?

- A. History of Hypertension
- B. History of diabetes mellitus
- C. History of thrombophlebitis
- D. Obesity

Answer: C

The FDA's absolute contraindications to oral contraceptives:

1. Deep vein thrombosis (current or history)
2. Pulmonary embolism (current or history)
3. Ischemic heart disease (current or history)
4. History of cerebrovascular accidents
5. Valvular heart disease with complications
6. Severe hypertension
7. Diabetes with vascular involvement
8. Headaches with focal neurological symptoms
9. Major surgery with prolonged immobilization
10. Known or suspected carcinoma of the breast or personal history of breast cancer
11. Liver tumors (benign and malignant), active liver disease
12. Known or suspected pregnancy
13. Heavy smoking (≥ 15 cigarettes per day) and over age 35.

Among the relative contraindications are hypertension, surgeries that require a period of immobilization, major injury to the lower extremity, migraines, tobacco use, diabetes mellitus, sickle cell disease, major depression, gallbladder disease, hepatitis, and age older than 40 years if there is an additional risk such as for coronary artery disease.

222. A 50-year-old female complains of vague abdominal pain, constipation, and a sense of fullness in the lower abdomen. On physical exam the abdomen is nontender, but there is shifting dullness to percussion.

This patient was found to have a right adnexal mass on physical examination. Abdominal ultrasound confirms the finding. Abdominal paracentesis reveals malignant cells consistent with ovarian cancer. Risk factors for this malignancy include

- A. Infertility
- B. Multiple partners
- C. Oral contraceptives pills
- D. Pregnancy

Answer: A

Most ovarian cancers arise from the epithelium that covers the ovary (not the stroma or germ cells inside the ovary). Ovarian cancer is the leading cause of death from gynecological malignancy. Risk factors include infertility and frequent miscarriages. Pregnancy decreases the risk of ovarian cancer; each pregnancy decreases the risk by about 10%. Oral contraceptives appear to be protective as well. A family history of ovarian cancer is a major risk factor, increasing a woman's risk threefold. Patients with multiple affected first-degree relatives may carry the BRCA1 or BRCA2 genes. Coitus early in life and multiple partners are risk factors for cervical, but not ovarian, carcinoma.

223. What is the most common cause of vaginal bleeding in reproductive-age women ?

- A. Dysfunctional uterine bleeding
- B. Ectopic pregnancy
- C. Endometriosis
- D. PID
- E. Pregnancy

Answer: A

Dysfunctional uterine bleeding (DUB) is abnormal genital tract bleeding based in the uterus and found in the absence of demonstrable structural or organic disease. It is usually due to hormonal disturbances: reduced levels of progesterone cause low levels of prostaglandin F₂α and cause menorrhagia (abnormally heavy flow); increased levels of tissue plasminogen activator (TPA) (a fibrinolytic enzyme) lead to more fibrinolysis.

Diagnosis must be made by exclusion, since organic pathology must first be ruled out.

DUB can be classified as ovulatory or anovulatory, depending on whether ovulation is occurring or not. It is usually a menstrual disorder, although abnormal bleeding from the uterus is possible outside menstruation.

224. A 20-year-old woman presents complaining of bumps around her vaginal opening. The bumps have been there for several months and are getting bigger. Her boyfriend has the same type of bumps on his penis. On physical examination the patient has multiple 2- to 10-mm lesions around her introitus consistent with condyloma. Her cervix has no gross lesions. A Pap smear is done. One week later, the Pap smear returns showing atypical squamous cells of undetermined significance (ASCUS). Reflex HPV typing showed no high-risk HPV. Which of the following viral types is most likely responsible for the patient's condyloma?

- A. HPV type 11
- B. HPV type 16
- C. HPV type 18
- D. HPV type 45

Answer: A

The human papillomaviruses (HPV) are a group of double-stranded DNA viruses that infect epithelial cells. They do not cause systemic infection. There are numerous viruses within the group, and they are named by number according to the order of their discovery. Human papilloma viruses can be sexually transmitted. HPV, in particular types 16, 18, and 31, have been linked to cervical neoplasia. HPV types 6 and 11 are associated with benign condyloma.

225. A 24-year old pregnant woman on 12-week of pregnancy comes to initial check-up. Her blood pressure is 150/95 mm Hg. Which of the following is most likely diagnosis in this patient?:

- A. Eclampsia
- B. Gestational hypertension
- C. pre-existing hypertension
- D. preeclampsia

Answer: C

Definition of pre-existing HTN: BP > 140/90 prior to 20 wk of gestational age, persisting >7 wk postpartum.-essential HTN is associated with increased risk of gestational HTN, abruption placenta, IUGR, and IUFD. References:Toronto notes 2017, OB23.

226. Inhibition of which of the following is the primary action of oral contraceptives?

- A. Decrease GnRH surge at the mid cycle
- B. Decrease estrogen to prevent the ovulation
- C. Increase prolactin
- D. Spermatozoa and thickening cervical mucus
- E. Suppressing the release of gonadotropins

Answer: E

Oral contraceptive pills contain estrogen and progesterone. Estrogen has a negative feedback on LH. LH surge stimulates ovulation. So, high level of estrogen in OCPs removes LH (which is gonadotropin) surge and prevents ovulation.

227. A recently retired 67-year-old woman presents to you to establish care. She was a smoker for a long time, but quit 5 years ago. She is generally healthy, but her prior physician told her that she has "emphysema." She was prescribed an "inhaler" to use as-needed and only uses it rarely. She asks about necessary immunizations. Her social history indicates that she lives with her daughter and often cares for her infant granddaughter. Her chart indicates that she had a pneumococcal polysaccharide vaccine at age 63 and a Td shot at age 63. Which of the following vaccines should she receive?

- A. MMR
- B. Pneumococcal polysaccharide
- C. Tdap
- D. Varicella

Answer: C

Of the vaccines listed, only the Tdap is indicated in this patient. According to 2011 guidelines, the Tdap vaccine should be administered to patients 65 years and older who have close contact with an infant aged less than 12 months. The Tdap vaccine should be administered regardless of the interval since the most recent Td-containing vaccine. People born before 1957 do not need to be vaccinated with an MMR, as they are considered immune. People born before 1980 are considered immune to varicella, and therefore do not need vaccination. Although she has a medical indication for the pneumococcal polysaccharide vaccine, she had her first shot before the age of 65. Therefore, she should get a onetime revaccination 5 years after her initial vaccination. Intranasal influenza should only be used in healthy adults younger than the age of 50.

228. During the evaluation of secondary amenorrhea in a 24-year-old woman, hyperprolactinemia is diagnosed. Which of the following conditions could cause increased circulating prolactin concentration and amenorrhea in this patient?

- A. Anorexia nervosa
- B. Congenital adrenal hyperplasia
- C. Primary hyperthyroidism
- D. Stress

Answer: D

In anorexia nervosa, prolactin, thyroid-stimulating hormone (TSH), and thyroxine levels are normal, FSH and LH levels are low, and cortisol levels are elevated. Prolactin is under the control of prolactin-inhibiting factor (PIF), which is produced in the hypothalamus. Many drugs (eg, the phenothiazines), stress, hypothalamic lesions, stalk lesions, and stalk compression decrease PIF. In hypothyroidism, elevated TRH acts as a prolactin-releasing hormone to cause release of prolactin from the pituitary; hyperthyroidism is not associated with hyperprolactinemia. There are many other conditions, such as acromegaly and pregnancy, that are associated with elevated prolactin levels. Hyperandrogenic conditions such as congenital adrenal hyperplasia or polycystic ovarian disease are not typically associated with hyperprolactinemia.

229. A 39-year-old female patient complains about hot flashes and feeling of intense heat arising up to 5 times a day, headaches in the occipital region along with high blood pressure, palpitations, dizziness, fatigue, irritability, memory impairment. 6 months ago the patient underwent extirpation of the uterus with its appendages. Which of the following is the most likely diagnosis?

- A. Physiological premenopause
- B. Post-castration syndrome
- C. Premenstrual syndrome
- D. Secondary psychogenic amenorrhea

Answer: B

Post-castration syndrome (PKS) - complex vegetative-vascular, neuroendocrine and neuropsychiatric symptoms that occur after total or subtotal oophorectomy (castration), combined with the removal of the uterus or without removal. PKS occur 1-3 weeks after the operation and reach full development in 2-3 months. The clinical picture is vegetative-vascular disorders (73%) - hot flushes, sweating, tachycardia, arrhythmia, heart pain, hypertensive crises; metabolic and endocrine disorders (15%) - obesity, hyperlipidemia, hyperglycemia; psycho-emotional (12%) - irritability, tearfulness, poor sleep, impaired concentration, aggressive and depressive states.

230. A primigravid woman at 32 weeks gestation is brought the doctor with a high fever, dysuria, flank pain, nausea, and vomiting. Which of the following are the most likely bacteria which cause such symptoms?

- A. E. coli
- B. Enterococci
- C. St. Aureus
- D. Str. Bovis

Answer: A

Pyelonephritis

1. Escherichia coli accounts for more than 70% of cases.
2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
4. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes).
7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

231. You are seeing five symptomatic menopausal patients in the clinic. Each patient has one of the medical conditions listed below. All of the patients wish to begin hormone replacement therapy today. The patient with which one of the following medical conditions may be started on hormone replacement therapy at the time of the visit?

- A. Chronic liver disease due to hepatitis B
- B. History of breast cancer
- C. Mild essential hypertension
- D. Undiagnosed genital tract bleeding

Answer: C

Absolute contraindications to postmenopausal hormone replacement therapy include the presence of estrogen-dependent tumors (breast or uterus), active thromboembolic disease, undiagnosed genital tract bleeding, active severe liver disease, or malignant melanoma. Past or current history of hypertension, diabetes, or biliary stones does not automatically disqualify a patient for hormone replacement therapy.

232. A woman has a progressive increase in her serum beta-human chorionic gonadotropin (beta-hCG) concentrations during an 8-week period. A hydatidiform mole is removed, but the beta-hCG concentration continues

to increase. Which of the following is the most likely diagnosis ?

- A. Adrenal adenoma
- B. Choriocarcinoma
- C. Ectopic pregnancy
- D. Pituitary insufficiency

Answer: B

Choriocarcinoma is a malignant, trophoblastic cancer, usually of the placenta. It is characterized by early hematogenous spread to the lungs. Choriocarcinoma of the placenta during pregnancy is preceded by: 1) hydatidiform mole (50% of cases) 2) spontaneous abortion (20% of cases) 3) ectopic pregnancy (2% of cases) 4) normal term pregnancy (20–30% of cases) The typical symptoms of choriocarcinoma are increased quantitative chorionic gonadotropin levels, vaginal bleeding, shortness of breath, hemoptysis and chest pain. Since gestational choriocarcinoma contains paternal DNA, it is exquisitely sensitive to chemotherapy. The cure rate, even for metastatic gestational choriocarcinoma, is around 90–95%.

233. An HIV mother at 34 weeks of gestational pregnancy is on antiviral medication. her viral load is 30000. Which of the following is the best recommendation for her?

- A. Cesarean section if viral load >1000
- B. Emergency cesarean section
- C. Normal vaginal delivery if viral load >1000
- D. Normal vaginal delivery if viral load >10000

Answer: A

AZT or nevirapine in pregnant women with HIV; perform elective C-section if viral load is > 1000; treat infants with prophylactic AZT; avoid breastfeeding. Reference: First Aid USMLE Step 2 CK 2014, page 328

234. A 41-year-old man returns from a week-long trip to Egypt. For the past two days he has been passing frequent bloody diarrhea associated with crampy abdominal pain. Abdominal examination shows diffuse lower abdominal tenderness but there is no guarding or rigidity. His temperature is 37 C , blood pressure is 134/86 mm Hg, pulse is 86/min, and respirations are 16/min. Which of the following is the most likely diagnosis?

- A. Giardiasis
- B. Salmonella
- C. Shigella
- D. Staphylococcus aureus

Answer: C

1. **Shigellosis** is a type of food poisoning caused by infection with the Shigella species.
2. t is a major public health problem in developing countries where sanitation is poor.
3. Shigellosis is spread by means of fecal-oral transmission.
4. **Symptoms** include fever, nausea, vomiting, tenesmus, and diarrhea that is usually bloody.
5. **Diagnosis** is clinical and confirmed by stool culture.
6. **Treatment** of mild infection is supportive, mostly with rehydration; **antibiotics** (eg, ciprofloxacin, azithromycin, ceftriaxone) are given to moderate to severely ill and high-risk patients with bloody diarrhea or immunocompromise and may shorten the duration of illness and decrease contagiousness.
7. Ampicillin was widely used in the past but is no longer an effective empiric treatment in the United States because of antibiotic resistance.
8. Avoid antimotility agents because they have the potential to worsen symptoms and may predispose to toxic dilation of the colon.
9. Clear liquids followed by a low residue, lactose-free diet are recommended until symptoms of shigellosis resolve.

1-6 hours	Staphylococcus aureus
12-48 hours	Salmonella, Escherichia coli
48-72 hours	Shigella,Campylobacter
>7 days	Giardiasis ,Amoebiasis

235. A patient with a family history of gynecological cancer presents with concerns about her risk of developing one and various diagnostic strategies. Which of the following gynecological cancers is most likely to be staged clinically rather than surgically?

- A. Cervical
- B. Endometrial
- C. Ovarian
- D. Vaginal
- E. Vulvar

Answer: A

Cervical cancer is staged by the International Federation of Gynecology and Obstetrics (FIGO) staging system, which is based on clinical examination, rather than surgical findings. It allows only these diagnostic tests to be used in determining the stage: palpation, inspection, colposcopy, endocervical curettage, hysteroscopy, cystoscopy, proctoscopy, intravenous urography, and X-ray examination of the lungs and skeleton, and cervical conization.

236. A 30-years-old female presenting with hirsutism, acne, and irregular menstruation. Which of the following is the most probable finding in this patient?

- A. High androgen
- B. Low LH
- C. Low androgen
- D. Low estrogen

Answer: A

PCOS caseExplanation:(high androgen, insulin resistance, acanthosis nigricans) Todiagnose PCOS1-US 2- lab (high: testosterone, androgen, insulin, Low: progesterone, increase ratio LH/FSH > 2:1) Clinically, the most common signs of PCOS are hirsutism (90%), menstrual irregularity (90%), and infertility (75%).The increased LH level promotes androgen secretion from ovarian theca cells, leading to elevated levels of ovarian-derived androstenedione and testosterone.Clinical presentation:-average age 15-35-in adolescent wait at least 1-2 years to make a diagnosis-Abnormal/irregular uterine bleeding, hirsutism, infertility, obesity, virilization. -acanthosis nigricans indicating insulin resistance(IR)-IR occurs in both lean and obese patients, with a family history of DM.Reference:Hacker and Moore's, page 364, 5th editionToronto notes 2017 pg24, 25.

237. A 27-year-old has just had an ectopic pregnancy. Which of the following events would be LEAST likely to predispose to ectopic pregnancy?

- A. Alcohol
- B. Endometriosis
- C. Pelvic Inflammatory Disease
- D. Previous pelvic or abdominal surgery

E. Smoking

Answer: A

Risk factors for an ectopic pregnancy include the following: Maternal age of 35-44 years Previous ectopic pregnancy Previous pelvic or abdominal surgery Pelvic Inflammatory Disease (PID) Several induced abortions Conceiving after having a tubal ligation or while an IUD is in place Smoking Endometriosis Undergoing fertility treatments or are using fertility medications <http://americanpregnancy.org/pregnancy-complications/ectopic-pregnancy/>

238. A 32-year-old woman presents to your office to discuss contraception. She has recently stopped breast-feeding her 8-month-old son and wants to stop her progestin-only pill because her cycles are irregular on it. You recommend a combination pill to help regulate her cycle. You also mention that with estrogen added, the contraceptive efficacy is also higher. In combination birth control pills, which of the following is the primary contraceptive effect of the estrogenic component?

- A. Atrophy of the endometrium
- B. Conversion of ethinyl estradiol to mestranol
- C. Suppression of follicle-stimulating hormone (FSH) secretion
- D. Suppression of luteinizing hormone (LH) secretion

Answer: C

The two estrogenic compounds used in oral contraceptives are ethinyl estradiol and its 3-methyl ether, mestranol. To become biologically effective, mestranol must be demethylated to ethinyl estradiol, because mestranol does not bind to the estrogenic cytosol receptor. The estrogenic component of birth control pills was originally added to control irregular endometrial desquamation resulting in undesirable vaginal bleeding. However, these estrogens imposed possible risks that would not be inherent in the progestational component alone. For example, thrombosis, the most serious side effect of the pill, is directly related to the dose of estrogen. The higher the estrogen dose, the more likely there will be thrombotic complications. The combination pill prevents ovulation by inhibiting gonadotropin secretion and exerting its principal effect on pituitary and hypothalamic centers. Progesterone primarily suppresses LH secretion, while estrogen primarily suppresses FSH secretion. Progestins are responsible for endometrial changes that result in an environment not conducive to implantation, and production of cervical mucus that retards sperm migration.

239. A 21-year-old woman presents to the gynecology clinic with a mass in the left breast. She discovered this mass while showering. Her last menstrual period was 10 days ago. There is no family history of breast cancer. On physical exam, you palpate a 3 cm, firm, non-tender mass in the upper lateral quadrant of the left breast. The mass is smooth, well-circumscribed, and mobile. There are no skin changes, nipple discharge, or axillary lymphadenopathy. Which of the following is the most likely diagnosis in this woman?

- A. Fibroadenoma
- B. Fibrocystic change
- C. Intraductal papilloma
- D. Lobular carcinoma in situ

Answer: A

Fibroadenoma -a benign, slow-growing breast tumor with epithelial and stromal components. The most common breast lesion in women < 30 years of age.

- . Presents as a round or ovoid, rubbery, discrete, relatively mobile, non-tender mass 1–3 cm in diameter.
- . Usually solitary, although up to 20% of patients develop multiple fibroadenomas.
- . Tumors do not change during the menstrual cycle.
- . Does not occur after menopause unless the patient is on HRT.

Reference: First Aid USMLE Step 2 CK 2014, page 390

240. What is the most common site of ectopic pregnancy?

- A. Ampulla of the fallopian tube
- B. Cervix
- C. Isthmic tube
- D. Ovary

Answer: A

1. Ectopic pregnancy is the result of a flaw in human reproductive physiology that allows the conceptus to implant and mature outside the endometrial cavity, which ultimately ends in the death of the fetus.
2. Without timely diagnosis and treatment, ectopic pregnancy can become a life-threatening situation.
3. An ectopic pregnancy is characterized by an adnexal mass and empty uterus on ultrasound.
4. The most likely site of an ectopic pregnancy is the ampulla. Cervical, ovarian, and abdominal ectopics are very rare

The classic clinical triad of ectopic pregnancy is as follows:

1. Abdominal pain
2. Amenorrhea
3. Vaginal bleeding

The presence of the following signs suggests a surgical emergency:

1. Abdominal rigidity
2. Involuntary guarding
3. Severe tenderness
4. Evidence of hypovolemic shock (eg, orthostatic blood pressure changes, tachycardia)

241. A pregnant female in her 34th weeks of gestation is given magnesium sulfate for pre-eclampsia. Which of the following is the earliest clinical sign of hypermagnesemia?

- A. Depression of the deep tendon reflexes
- B. Flaccid quadriplegia
- C. Respiratory arrest
- D. Somnolence

Answer: A

States of magnesium excess are characterized by generalized neuromuscular depression. Clinically, severe hypermagnesemia is rarely seen except in those patients with advanced renal failure treated with magnesium-containing antacids. Hypermagnesemia is produced intentionally, however, by obstetricians who use parenteral magnesium sulfate (MgSO_4) to treat preeclampsia. MgSO_4 is administered until depression of the deep tendon reflexes is observed, a deficit that occurs with modest hypermagnesemia (over 4 meq/L). Greater elevations of magnesium produce progressive weakness, which culminates in flaccid quadriplegia and in some cases respiratory arrest from paralysis of the chest bellows mechanism. Hypotension may occur because of the direct arteriolar relaxing effect of magnesium. Changes in mental status occur in the late stages of the syndrome and are characterized by somnolence that progresses to coma.

242. A 23-years-old woman was delivered to the gynecological office with a lack of consciousness and copious bloody secretions from the genital tract. Her blood pressure is pulse 90 / min, skin is pale, on the skin of the neck, arms, legs, and perineum are numerous hematomas. Which of the following is most likely the cause of this findings?

- A. Criminal abortion
- B. Genital trauma due to rape
- C. Hemorrhagic metropathy
- D. Postpartum hemorrhage

Answer: B

Many rapes do not result in serious injury. The first medical response to sexual assault is a complete assessment. This general assessment will prioritize the treatment of injuries by the emergency room staff. Medical personnel involved are trained to assess and treat those assaulted or follow protocols established to ensure privacy and best treatment practices. Informed consent is always required prior to treatment unless the person who was assaulted is unconscious, intoxicated or does not have the mental capacity to give consent. Priorities governing the physical exam are the treatment of serious life-threatening emergencies and then a general and complete assessment. Some physical injuries are readily apparent such as, bites, broken teeth, swelling, bruising, lacerations and scratches. In more violent cases, the victim may need to have gunshot wounds or stab wounds treated. The loss of consciousness is relevant to the medical history. If abrasions are found, immunization against tetanus is offered if 5 years have elapsed since the last immunization.

243. You are following a 22-year-old G2P1 at 39 weeks during her labor. At 4 cm dilated she is given an epidural for pain management. Three hours after administering the pain medication, the patient's cervical examination is unchanged. Her contractions are now every 2 to 3 minutes, lasting 60 seconds. The fetal heart rate tracing is 120 beats per minute with accelerations and early decelerations. Which of the following is the best next step in management of this patient?

- A. Place a fetal scalp electrode.
- B. Place an intrauterine pressure catheter (IUPC).
- C. Prepare for a cesarean section secondary to a diagnosis of secondary arrest of labor.
- D. Rebolus the patient's epidural.

Answer: B

Arrest of labor cannot be diagnosed during the first stage of labor until the cervix has reached 4 cm dilation and until adequate uterine contractions (both in frequency and intensity) have been documented. The actual pressure within the uterus cannot be measured via an external tocodynamometer; an IUPC needs to be placed. It is generally accepted that 200 MUV (number of contractions in 10 minutes \times average contraction intensity in mm Hg) are required for normal labor progress. A fetal scalp electrode would need to be placed in cases where the fetal heart rate tracing is difficult to monitor externally. A cesarean section would need to be performed once arrest of labor is diagnosed. Augmentation with Pitocin would be indicated if inadequate uterine contractions are diagnosed via the IUPC. The epidural would need to be rebolused if the patient requires additional pain relief.

244. A woman presents to the clinic complaining of numbness, pain, and paresthesia in her right palm. Her symptoms are worsened by activity. Which of the following is the best initial therapy?

- A. Decompression surgery
- B. Physical therapy
- C. Reassurance
- D. Wrist splinting

Answer: D

Carpal tunnel syndrome (CTS)

1. Syndrome resulting from median compression at the wrist
2. Risk factors: Pregnancy, rheumatoid arthritis (RA), diabetes mellitus (DM), acromegaly, hypothyroidism, obesity, overuse (activities requiring significant wrist motion, including typing, piano playing, writing, etc.)
3. Most common in persons 30 to 55 years of age; female > male.
4. It is commonly seen in individuals with history of repetitive hand movements.
5. Clinical features: wrist pain that radiates up arm and worsens with hand flexion and grasping, decreased hand strength, numbness in thumb and in index and middle fingers; decreased palmar two-point discrimination, except on the radial side of the palm

Treatment

1. The initial treatment of CTS involves neutral wrist position splinting and NSAIDs.
2. Local steroid injection is indicated in cases where wrist splinting is insufficient to relieve pain.
3. Surgical decompression is reserved for cases when conservative management fails.

245. A 26-year-old woman comes to the clinic with a firm, painless mass in her left breast. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Intraductal papilloma
- C. Medullary carcinoma
- D. Paget disease of breast

Answer: A

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

246. A patient with endometriosis comes for a consultation. Which of the following is not a typical symptom or complication of this disease?

- A. Dysmenorrhea
- B. Dyspareunia
- C. Endometrial cancer
- D. Infertility

Answer: C

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Patients with endometriosis do not frequently have any physical examination findings beyond tenderness related to the site of involvement. 3. The most common finding is nonspecific pelvic tenderness. 4. Most commonly affects women age 25-35 with nulliparity or early menarche. Risk factors: 1. Nulliparity 2. Early menarche 3. Shorter menstrual cycles 4. Menstrual outflow obstruction. Clinical picture: 1. Dyspareunia 2. Dysmenorrhea 3. Pelvic pain 4. Infertility. Diagnosis: Laparoscopy is considered the primary diagnostic modality for endometriosis (gold standard). Treatment: 1. First-line therapy: Continuous oral progesterone or oral contraceptive pill (OCP). Progesterone inhibits endometrial growth. 2. Second-line therapy: Testosterone derivatives (Danocrine or danazol) or GnRH analogs (Lupron or leuprolide). Complications of endometriosis may include or fall into the following 3 categories: 1. Infertility/subfertility 2. Chronic pelvic pain and subsequent disability 3. Anatomic disruption of involved organ systems (eg, adhesions, ruptured cysts)

247. A 26-year old lady comes to the doctor with a history of amenorrhea and galactorrhea of 6 months duration. Pregnancy testing in the office is negative. Which of the following is the most likely diagnosis?

- A. Craniopharyngioma
- B. Pituitary apoplexy
- C. Prolactinoma
- D. Tic douloureux

Answer: C

1. Prolactinomas produce amenorrhea and galactorrhea in young women.
2. Prolactinoma is the most common pituitary tumor. It presents differently in men and women.
3. Men: presents with impotence, decreased libido, and occasionally gynecomastia.
4. Men are more likely to have the signs of mass effect of a tumor, such as headache and visual disturbance.
5. Women: amenorrhea and galactorrhea in the absence of pregnancy has women presenting early.
6. The most accurate diagnostic test is an MRI of the brain.
7. Diagnostic workup includes ruling out pregnancy (pregnancy test), ruling out hypothyroidism,
8. Best initial therapy: Dopamine agonist agents, such as bromocriptine or cabergoline.
9. Most prolactinomas respond to dopamine agonists.

248. A 40-year-old woman comes with abnormally heavy menstrual bleeding. She denies pain and is not using any hormonal contraception. She uses multiple sanitary pads per day. On pelvic examination, there is normal size uterus with symmetric contours. The uterus is non-tender to palpation. Level of luteinizing hormone (LH), follicle stimulating hormone (FSH), prolactin, T4, thyroid stimulating hormone (TSH), β -hCG, and androgen profile are within normal limits. You order D&C examination which shows normal endometrium. Which of the following is most likely diagnosis in this patient?

- A. Adenomyosis
- B. Endometrial cancer
- C. Leiomyomas
- D. Ovulatory dysfunction

Answer: D

Abnormal uterine bleeding (formerly, dysfunctional uterine bleeding) is irregular uterine bleeding that occurs in the absence of recognizable pelvic pathology, general medical disease, or pregnancy. It reflects a disruption in the normal cyclic pattern of ovulatory hormonal stimulation to the endometrial lining. This causes irregular shedding of the uterine lining and break-through bleeding. It may represent a possible endocrine dysfunction, resulting in menorrhagia or metrorrhagia. Mid-cycle bleeding may indicate a transient estrogen decline, while late-cycle bleeding may indicate progesterone deficiency.

249. When is considered a prolonged pregnancy?

- A. After 40 weeks
- B. After 41 weeks
- C. After 42 weeks
- D. After 43 weeks

Answer: C

Postterm pregnancy is the condition of a baby that has not yet been born after 42 weeks of gestation, two weeks beyond the normal 40. Post-mature births can carry risks for both the mother and the infant, including fetal malnutrition. After the 42nd week of gestation, the placenta, which supplies the baby with nutrients and oxygen from the mother, starts aging and will eventually fail. If the fetus passes its fecal matter, which is not typical until after birth, and breathes it in, it could become sick with meconium aspiration syndrome. Postterm pregnancy may be a reason to induce labor.

250. A 50-year-old female comes to the office with complaints of amenorrhea for 3 months, hot flashing, and sweats at night. Which of the following would be found in her serum?

- A. Decrease FSH, decrease LH
- B. Decrease FSH, increase LH
- C. Increase FSH, decrease LH
- D. Increase FSH, increase LH

Answer: D

This woman most likely has menopause. The anterior pituitary secretes FSH and LH at high levels due to the dysfunction of the ovaries and consequent low estrogen levels.

251. A rape victim returns to your office 2 months after the attack for a follow-up visit. She informs you that her sleep has improved and she can now be by herself without feeling anxious or panicked. She has also developed new friendships through her church. She states that she is changing jobs and moving to a new town. She feels that with this change she will be in control of her life. The best recommendation you can make for the recovery of this patient is which of the following?

- A. Continue counseling.
- B. Face her attacker to bring closure to this event.
- C. Get her to accept responsibility for the attack.
- D. Stop counseling since her recovery is now complete.

Answer: A

The reorganization phase of the rape trauma syndrome involves long-term adjustments and may last for months to years. Flashbacks and nightmares may continue and phobias may develop. Victims may also make many new lifestyle changes (eg, moving, making new friends, getting a new job). This is an attempt by victims to regain control over their lives. Medical and counseling care should remain nonjudgmental, sensitive, and attuned to the patient's overall well-being. It is important for the patient to continue counseling during this time for full recovery to be achieved.

252. When is the best time to do amniocentesis?

- A. 10 weeks
- B. 12 weeks
- C. 14 weeks
- D. 16 weeks

Answer: D

Amniocentesis (also referred to as amniotic fluid test or AFT) is a medical procedure used in prenatal diagnosis of chromosomal abnormalities and fetal infections, and also for sex determination, in which a small amount of amniotic fluid, which contains fetal tissues, is sampled from the amniotic sac surrounding a developing fetus, and then the fetal DNA is examined for genetic abnormalities. Amniocentesis is performed between the 15th and 20th week of pregnancy; performing this test earlier may result in fetal injury.

253. A 37-year-old woman comes to the doctor with a history of amenorrhea and galactorrhea of 6 months duration. Pregnancy testing in the office is negative. Which of the following is the most likely diagnosis?

- A. Craniopharyngioma
- B. Pituitary apoplexy
- C. Prolactinoma
- D. Tic douloureux

Answer: C

1. Prolactinomas produce amenorrhea and galactorrhea in young women. 2. Prolactinoma is the most common pituitary tumor. It presents differently in men and women. 3. Men: presents with impotence, decreased libido, and occasionally gynecomastia. 4. Men are more likely to have the signs of mass effect of a tumor, such as headache and visual disturbance. 5. Women: amenorrhea and galactorrhea in the absence of pregnancy has women presenting early. 6. The most accurate diagnostic test is an MRI of the brain. 7. Diagnostic workup includes ruling out pregnancy (pregnancy test), ruling out hypothyroidism, 8. Best initial therapy: Dopamine agonist agents, such as bromocriptine or cabergoline. 9. Most prolactinomas respond to dopamine agonists.

254. A 25-year-old female presents with lower abdominal pain, fever, and a vaginal discharge. Pelvic examination reveals bilateral adnexal (ovarian) tenderness and pain when the cervix is manipulated. Cultures taken from the vaginal discharge grow *Neisseria gonorrhoeae*. What is your diagnosis of the cause of this patient's adnexal pain?

- A. Appendicitis

- B. Endometritis
- C. Ovarian torsion
- D. Pelvic inflammatory disease

Answer: D

Pelvic inflammatory disease (PID) is a common disorder caused by infection with either gonococci (the most common cause), chlamydiae, or enteric bacteria. Gonococcal infection, seen microscopically as gram-negative intracellular diplococci, begins in the Bartholin's glands and then spreads upward to involve the fallopian tubes and tuboovarian regions. This produces PID, which is characterized by pelvic pain, fever, adnexal tenderness, and pain when the cervix is manipulated. Complications of PID include peritonitis from rupture of a tuboovarian abscess, infertility, and intestinal obstruction.

255. A 40-years-old woman comes to you for advice. She has a history of fetal death and now is thinking about getting pregnant again. She worries that the same will happen again. Which of the following would be the best management for the woman?

- A. Higher risk because of her age
- B. Reassurance
- C. Sampling of amniotic fluids at 22 weeks
- D. She has higher risk as the rest
- E. Ultrasound examination every week

Answer: B

Tight control of blood glucose prior to conception can substantially reduce the risk of congenital anomalies in the fetus. Preconceptional counseling is helpful if congenital anomalies or genetic abnormalities are found. Genetic screening and detailed ultrasound can evaluate future pregnancies. In some cases, such as cord occlusion, the patient can be assured that recurrence is very unlikely. Fetal death of unknown cause is a special problem. Because a large number of etiologies of fetal demise exist, a provider has difficulty determining risk of stillbirth for any particular pregnancy. Evidence-based models such as Active Management of Risk In Pregnancy At Term (AMOR-IPAT) are being created in an effort to better estimate this risk. Although recurrent fetal loss is uncommon, patients are naturally anxious. Most patients find increased fetal surveillance with the next pregnancy reassuring, even though such testing is not clearly beneficial. The ACOG recommends antepartum testing starting at 32-34 weeks' gestation in an otherwise healthy mother with history of stillbirth. Weekly biophysical profile or fetal heart rate testing can be combined with maternal kick counts in the third trimester. For patients who have experienced earlier loss, frequent ultrasound is reassuring. Optimal management of chronic medical conditions is important prior to the next pregnancy.

256. When amniotic fluid is less than 400 ml at 34-38 weeks it is considered as:

- A. Hyperhydramnios
- B. Hypohydramnios
- C. Oligohydramnios
- D. Polyhydramnios

Answer: C

Oligohydramnios is a condition in pregnancy characterized by a deficiency of amniotic fluid.

At 12 weeks' gestation, the average volume is 60 ml.

By 16 weeks, when genetic amniocentesis is often performed, the mean volume is 175 ml.

From 20 weeks on, there is greater variance of amniotic fluid volume. Based on numerous studies using dye or paraaminohippurate dilution, radioactive isotopes, and actual collection of amniotic fluid at amniotomy, it has been determined that amniotic fluid volume increases steadily throughout pregnancy to a maximum of 400–1200 ml at 34–38 weeks.

257. A 30-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year.

Which of the following is the definitive test for diagnosing endometriosis?

- A. Laparoscopy
- B. Pap smear
- C. Quantitative hCG testing
- D. Ultrasound

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity

2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled “chocolate cyst”).

3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus.

4. Laparoscopy is the gold standard for the diagnosis of endometriosis.

5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal.

6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

258. A menopause lady came with complaints of vaginal spotting. During the pelvic examination, there was found a mass of the uterine cervix. Which of the following is the best next step for this woman?

- A. Colposcopy
- B. Directed biopsy
- C. HPV test
- D. Pap smear

Answer: B

Because pap smear is only a screening test! Any patient with grossly abnormal cervix should have a punch biopsy regardless of any previous result. Reference :4th year CIN and Cervical Cancer lecture.

259. A healthy 23-year-old G1P0 has had an uncomplicated pregnancy to date. She is disappointed because she is 40 weeks gestational age by good dates and a first-trimester ultrasound. She feels like she has been pregnant forever, and wants to have her baby now. The patient reports good fetal movement; she has been doing kick counts for the past several days and reports that the baby moves about eight times an hour on average. On physical examination, her cervix is firm, posterior, 50% effaced, and 1 cm dilated, and the vertex is at a-1 station. As her obstetrician, which of the following should you recommend to the patient?

- A. She should be admitted for Pitocin induction.
- B. She should be admitted for an immediate cesarean section.
- C. She should be scheduled for a cesarean section in 1 week if she has not gone into labor by that time.
- D. She should continue to monitor kick counts and to return to your office in 1 week to reassess her situation.

Answer: D

Postterm or prolonged pregnancies are those pregnancies that have gone beyond 42 completed weeks of gestation. In general, obstetricians do not allow pregnancies to persist after 42 weeks because of the significantly increased incidence of perinatal morbidity and mortality. If a patient has a favorable cervix, it is reasonable to induce the patient at 41 weeks because the chance of having a successful vaginal delivery is very high. On the other hand, if the patient has an unfavorable cervix, it is generally recommended that she continue with the pregnancy. Alternatively, a patient can be induced at 41 weeks with an unfavorable cervix if cervical ripening agents are used. If a patient waits until 42 weeks and still has an unfavorable cervix, then admission with administration of cervical ripening agents prior to Pitocin induction is recommended to improve the likelihood of a successful vaginal delivery. The Bishop score is a method to document the favorability of the cervix to induction. The elements of the Bishop score include effacement, dilation, station, consistency, and position of the cervix (see table). Points are assigned for each element, and then totaled to give the Bishop score. Induction to active labor is usually successful with a Bishop score of 9 or greater. In the scenario described here, the patient has a Bishop score of 4, which is unfavorable for induction. Therefore, expectant management is a reasonable management plan to try to give the cervix time to ripen to avoid a cesarean section. It is not recommended to perform an elective section without a trial of labor because of the risks of major surgery.

260. A 16-year-old girl comes with complaints of no menstrual cycle. Her secondary sexual characteristics are normal. Ultrasound examination reveals an absence of fallopian tubes, uterus, cervix, upper vagina. Which of the following is the most likely diagnosis in this patient?

- A. Complete androgen insensitivity
- B. Imperforate hymen
- C. Mullerianagenesis
- D. Ovarian agenesis.

Answer: C

The patient most likely has Mullerian agenesis based on the ultrasound findings - an absence of fallopian tubes, uterus, cervix, upper vagina. The typical presentation is primary amenorrhea but a normal development of secondary sexual characters. Imperforate hymen or hematocolpos blood in the vagina that cannot escape, along with a bulging hymen. Requires surgical opening. There is all female internal genital organs. Complete androgen insensitivity - patients have normal breast development (aromatization of testosterone to estrogen) but are amenorrheic and lack of pubic hair. Reference: First Aid USMLE Step 2 CK 2014, page 366

261. Which of the following is not contraindicated during pregnancy?

- A. Amicacyn
- B. Ampicillin
- C. Fluoroquinolones
- D. Tetracycline

Answer: B

Ampicillin is safe during pregnancy

Tetracycline - Affect bone growth of the fetus, so should be avoided during pregnancy

Amikacin - if used during pregnancy it may cause permanent deafness in the baby.

Ciprofloxacin - Safety concerns exist for fluoroquinolone use during pregnancy, so they are contraindicated unless no other safe alternative antibiotic exists.

262. Dozens of political refugees fleeing from active warfare and living in a dense forest environment with crowded, unsanitary conditions experienced nonspecific symptoms, followed by high fever, severe headache, chills, myalgia, and arthralgia. All had body lice. Improved living conditions in a refugee camp and treatment with tetracycline brought resolution to most individuals. Which of the following statements describes the etiological agent responsible for their infection?

- A. Reoccurrence of milder disease may occur in later years

- B. The disease was caused by a tick vector
- C. The disease was caused by a viral agent
- D. The disease was caused by an organism with no cell walls
- E. The disease was derived from rodents living in the forest area

Answer: A

The disease described is epidemic typhus or louse-borne typhus. It is caused by *R. prowazekii* and is spread by the human body louse, *Pediculus humanus*. Lice obviously occur most readily in unsanitary conditions brought on by war or natural disasters, where normal healthy living conditions are unavailable. Rickettsial diseases respond to tetracycline treatment and vector control. The organisms replicate in endothelial cells, resulting in vasculitis. Recrudescent disease (recurrence in later years) has been demonstrated in people exposed to epidemic typhus during World War II. This form of disease is generally milder, and convalescence is shorter. Rickettsiae are pleomorphic coccobacilli with cell walls that do not stain well in Gram stain procedures. No viruses were involved in this problem because tetracycline was able to kill the infecting organisms. Humans are the main reservoir of the causative agent.

263. Which of the following viruses is associated with cervical cancer?

- A. Cytomegalovirus
- B. Herpes simplex viruses type 2
- C. Herpes simplex viruses type 6
- D. Human papillomavirus

Answer: D

1. Cervical cancer is usually a squamous cell carcinoma caused by human papillomavirus infection.
2. 80 to 85% of all cervical cancers are squamous cell carcinoma; most of the rest are adenocarcinomas.
3. Risk factors for cervical cancer include the following: Multiparity, smoking, early initiation of intercourse, multiple sexual partners, HIV infection, venereal warts, family history and HPV: Types 6 and 11.
4. Cervical neoplasia is asymptomatic; the first symptom of early cervical cancer is usually irregular, often postcoital vaginal bleeding.
5. May present with postcoital bleeding, menorrhagia, pelvic pain, or vaginal discharge.
6. Diagnosis is by a screening cervical Pap test and biopsy.
7. Treatment usually involves surgical resection for early-stage disease or radiation therapy plus chemotherapy for locally advanced disease. If the cancer has widely metastasized, chemotherapy is often used alone.

264. A pregnant woman comes with the confirmed diagnosis of gestational diabetes. Which of the following is the best medication for gestational diabetes mellitus?

- A. Glipizide
- B. Insulin
- C. Metformin
- D. Sitagliptin

Answer: B

Traditionally, insulin has been the gold standard in the management of Type 2 diabetes in pregnancy and gestational diabetes. The evidence of some studies supports the use of glyburide and metformin in the management of Type 2 diabetes and gestational diabetes with no increased risk of neonatal hypoglycemia or congenital anomalies.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664692/>

265. A breastfeeding woman who does not have MMR is asking if she can do it right now. Which of the following is the best recommendation for her?

- A. It is harmful to the baby
- B. Recommend to do MMR vaccine after breastfeeding period

- C. Recommend to do MMR vaccine right now
- D. Take the vaccine and stop breastfeeding for 1 week

Answer: C

Reference: 3rd Edition UQU > Obstetrics and Gynecology > Q 39
vaccines given to a nursing mother do not affect the safety of breastfeeding for mothers or infants and that breastfeeding is not a contraindication to MMR vaccine. Reference: CDC

266. At the 18th week of pregnancy due to injury, a woman had a heart stop. In what position should an indirect heart massage be performed?

- A. In the position of the pregnant woman on the abdomen
- B. In the position of the pregnant woman on the right side
- C. With lowered legs of a pregnant woman
- D. With raised legs of a pregnant woman

Answer: D

In the supine position an additional factor is compression of the inferior vena cava by the gravid uterus, which impairs venous return and reduces cardiac output; all attempts at resuscitation will be futile unless the compression is relieved. This is achieved either by placing the patient in an inclined lateral position by using a wedge or by displacing the uterus manually. Raising the patient's legs will improve venous return.

Lateral displacement of the uterus

Effective forces for chest compression can be generated with patients inclined at angles of up to 30°, but pregnant women tend to roll into a full lateral position when inclined at angles greater than this, making chest compression difficult. The Cardiff resuscitation wedge is not commercially available, so other techniques need to be used. One technique is the "human wedge," in which the patient is tilted on to a rescuer's knees to provide a stable position for basic life support. Alternatively, the patient can be tilted on to the back of an upturned chair. Purpose-made wedges are available in maternity units, but any cushion or pillow can be used to wedge the patient into the left inclined position. An assistant should, however, move the uterus further off the inferior vena cava by lifting it with two hands to the left and towards the patient's head.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC286253/>

267. A pregnant woman comes for a medical consultation. She has a history of premature rupture of membranes because of bacterial vaginosis. She is asymptomatic right now. When would be the best screening period for bacterial vaginosis in this woman?

- A. It is not recommended screening for bacterial vaginosis
- B. Screening should be in the first trimester
- C. Screening should be in the second trimester
- D. Screening should be in the third trimester

Answer: A

The USPSTF recommends against screening for bacterial vaginosis in asymptomatic pregnant women at low risk for preterm delivery. The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for bacterial vaginosis in asymptomatic pregnant women at high risk for preterm delivery.

268. A 22-year-old woman delivers a 7-lb male infant at 40 weeks without any complications. On day 3 of life, the infant develops respiratory distress, hypotension, tachycardia, listlessness, and oliguria. What is the most likely cause of the infant's illness?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Hepatitis B
- D. Herpes simplex

Answer: B

Early-onset group B streptococcus disease occurs within 1 week of birth. Signs of the disease include respiratory distress, apnea, and shock. Late-onset disease usually occurs after 7 days and manifests as meningitis. Listeriosis during pregnancy can be asymptomatic or cause a febrile illness that is confused with influenza, pyelonephritis, or meningitis. *Listeria monocytogenes*, the causative bacteria is usually acquired through food-borne transmission from manure-contaminated cabbage, pasteurized milk, and fresh Mexican-style cheeses. Fetal infection is characterized by granulomatous lesions with microabscesses. Early onset neonatal sepsis is a common manifestation of listeriosis during pregnancy, and late onset listeriosis occurs after 3 to 4 weeks as meningitis, which is similar to group B streptococci. However, listeriosis infection is much less common.

269. A 29-year-old female with lower abdominal pain, fever, chills, dysuria, cervical motion tenderness, and adnexal tenderness. Which of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Gonococcal urethritis
- C. Herpes simplex infection
- D. Pelvic inflammatory disease

Answer: D

1. **Pelvic inflammatory disease** (PID) is an infectious and inflammatory disorder of the upper female genital tract, including the uterus, fallopian tubes, and adjacent pelvic structures.
2. **Organism**: Most commonly caused by Chlamydia trachomatis D and K and/or Neisseria gonorrhea.
3. **Risk factors** °„: multiple sexual partners, unprotected intercourse, prior PID, douching, young age at first intercourse
4. **Symptoms**: Lower abdominal pain starting within days of menses, nausea, vomiting, dysuria; purulent cervical discharge, abdominal tenderness, fever, cervical motion tenderness, adnexal tenderness, possible abdominal guarding
5. The diagnosis of acute PID is primarily based on historical and clinical findings.
6. **Pregnancy test is the best initial test.**
7. **Laparoscopy is the most accurate test**
8. **Treatment**: Ceftriaxone or cefoxitin plus doxycycline for 2–3 weeks.

270. Parents have twins - male and female. They told you that female get puberty characteristics at 9 years and concerned that the male doesn't have any puberty features. Which of the following is true?

- A. Check the girl for precocious puberty
- B. Female gets puberty 1-2 years earlier than male
- C. Female gets puberty at the same time as male
- D. The boy most likely has androgen insensitivity syndrome

Answer: B

Female: onset of puberty at 8-13 years (and may start as early as 7 y in girls with African decent).

Early puberty is common and often constitutional, late puberty is rare (rule out organic cause).

Male: onset of puberty at 9-14 years, early puberty is uncommon (rule out organic causes, late puberty is common and often constitutional).

References:

Toronto notes 2017, P30

271. Which of the following is a correct blood loss in a woman with menorrhagia?

- A. 10
- B. 100
- C. 40
- D. 70

Answer: B

Menorrhagia is defined as excessive uterine bleeding occurring at regular intervals or prolonged uterine bleeding lasting more than seven days. Classically more than 80 ml/cycle.

272. A 29-year-old woman comes to the gynecology clinic with a two-year history of breast pain. The pain is worse just before her menses and denies any nipple discharge. Her last menstrual period was six days prior to presentation. There is no family history of breast cancer and her menstrual cycle began at 15 years of age. Physical exam reveals diffuse nodularity in the upper outer quadrants of both breasts. There is no lymphadenopathy. Which of the following is the most the best procedure for diagnosis in this woman?

- A. Core biopsy
- B. Excisional biopsy
- C. Fine needle aspiration
- D. MRI

Answer: B

Fibrocystic Breast Disease
1. Definition: Changes in the breast that occur due to evolution and involution.
2. It is benign condition.
3. Very common in pre-menopausal females.
4. Patients present with bilateral painful, rubbery, firm, mobile masses; who experiences more tenderness during her menses.
5. Exam: Nodular breast diffusely on palpation.
6. Diagnosis: Excisional biopsy is the gold standard.
7. Complication: Breast cancer.
8. Treatment: Supportive, except for large lesions, e.g., Cysts or lumps, which can be excised.
9. Fibrocystic disease is treated with aspiration of the cyst, which should yield clear fluid (serous "greenish" and non-bloody) and result in the disappearance of the mass. Afterwards, patients are typically observed for 4 to 6 weeks.

273. A 40-years old pregnant woman at 12 weeks of pregnancy presents with morning sickness and amenorrhea for 2 months. Ultrasound examination of her uterus has shown large for gestational age uterus with fetal parts and no heart sounds. Her urinary b-hCG level is 10 times higher than normal for her gestational age. She was diagnosed to have cancer which is sensitive to chemotherapy and easily treated. Which of the following is the most likely diagnosis in the woman?

- A. Choriocarcinoma
- B. Clear cell adenocarcinoma
- C. Endometriosis
- D. Ovarian cancer

Answer: A

Choriocarcinoma is a malignant, trophoblastic cancer, usually of the placenta. It is characterized by early hematogenous spread to the lungs. Choriocarcinoma of the placenta during pregnancy is preceded by: 1) hydatidiform mole (50% of cases) 2) spontaneous abortion (20% of cases) 3) ectopic pregnancy (2% of cases) 4) normal term pregnancy (20–30% of cases) The typical symptoms of choriocarcinoma are increased quantitative chorionic gonadotropin levels, vaginal bleeding, shortness of breath, hemoptysis and chest pain. Since gestational choriocarcinoma contains paternal DNA, it is exquisitely sensitive to chemotherapy. The cure rate, even for metastatic gestational choriocarcinoma, is around 90–95%.

274. A female tried to get pregnant for 13 months. She is healthy and her husband is known to be healthy as well. Which of the following is the best next step for this couple infertility

- A. Advice them to try at least 18 months of unprotected sexual intercourse
- B. Hysterosalpingography
- C. Semen analysis
- D. Serum prolactin level of the woman

Answer: C

The most common factor of infertility in a couple is men's problem. So the quickest and the cheapest method of diagnosing is semen analysis. Reference: 1.
<http://www.cdc.gov/reproductivehealth/infertility/>

275. Which of the following is the gold standard for the diagnosis of endometriosis?

- A. CT of the pelvis
- B. Laparoscopy
- C. Pap smear
- D. Ultrasound

Answer: B

1. Patients with endometriosis present with dysmenorrhea, dyspareunia and dyschezia and the physical exam reveals tender adnexal mass and firm nodularity located in the broad ligaments, the uterosacral ligament or in the cul-de-sac.
2. Ovaries is the most common site.
3. Endometriosis is the most common cause of female infertility.
4. U/S of the pelvis is suggestive, but diagnosis is confirmed only by visualizing the powder burn implants and chocolate cysts during laparoscopy.
5. **Laparoscopy** is the gold standard for the diagnosis of endometriosis.

276. A 36-year old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the appropriate management of this patient?

- A. Analgesics, frequent breastfeeding and antibiotics
- B. Incision and drainage
- C. Needle biopsy
- D. Stop breastfeeding

Answer: A

Mastitis 1. Lactational mastitis: Common in the first few months of lactation. 2. It is mostly caused by *Staphylococcus aureus*, affects one quadrant and is treated with penicillinase resistant penicillin. 3. Mastitis is not a contraindication to breastfeeding. 4. Symptoms often begin 2-4 weeks postpartum; are usually unilateral; and include focal breast tenderness, erythema, edema, warmth, and possible purulent nipple drainage. 5. Treatment: Continued breast-feeding and PO antibiotics (e.g., penicillin, dicloxacillin, erythromycin). 6. Incision and drainage of breast abscess if present.

277. What is true about Pap smear?

- A. From 21-35 repeated every 3 years
- B. From 21-65 yrs repeated every 5 years
- C. From 21-65 yrs repeated every year
- D. From 30-65 every 5 years if Pap test combined with HPV test
- E. From 30-65 repeated every 5 years

Answer: D

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test). Beginning at age 30, the preferred way to screen is with a Pap test combined with an HPV test every 5 years. This is called co-testing and should continue until age 65. <https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

278. A girl has a primary amenorrhea. Which of the following is the best next step?

- A. Estrogen/progesterone
- B. GnRH
- C. LH/FSH
- D. Urinary b-hCG

Answer: D

First step: Get a pregnancy test.

Next step: Obtain a radiograph to determine if bone age is consistent with pubertal onset (> 12 years in girls).

If the patient is of short stature (bone age < 12 years) with normal growth velocity, constitutional growth delay (the most common cause of 1° amenorrhea) is the probable cause.

If bone age is > 12 years but there are no signs of puberty, obtain LH/FSH and consider where the problem is on the HPA axis .

↓ GnRH, ↓ LH/FSH, ↓ estrogen/progesterone at prepuberty levels: Points to constitutional growth delay (puberty has not yet started).

↓ GnRH, ↓ LH/FSH, ↓ estrogen/progesterone: Hypogonadotropic hypogonadism. Suggests a hypothalamic or pituitary problem.

↑ GnRH, ↑ LH/FSH, ↓ estrogen/progesterone: Hypergonadotropic hypogonadism. Points to a condition in which the ovaries fail to produce estrogen.

↑ GnRH, ↑ LH/FSH, high estrogen or testosterone: Suggests PCOS or a problem with estrogen receptors.

Normal pubertal hormone levels: Indicates an anatomic problem.

Ultrasound may be needed to evaluate the ovaries. Normal breast

development and no uterus: Obtain a karyotype to evaluate for

androgen insensitivity syndrome. Stigmata of Turner's syndrome:

Obtain a karyotype. Normal breast development and uterus: Measure prolactin and obtain a cranial MRI.

Reference: First Aid USMLE Step 2 CK 2014, page 367

279. A 34-year-old female comes with lower abdominal pain, fever, and a vaginal discharge. Pelvic examination reveals bilateral adnexal (ovarian) tenderness and pain when the cervix is manipulated. Cultures taken from the vaginal discharge grow *Neisseria gonorrhoeae*. What is your diagnosis of the cause of this patient's adnexal pain?

- A. Bacterial vaginosis
- B. Candidiasis
- C. Pelvic inflammatory disease
- D. Septic shock
- E. Toxic shock syndrome

Answer: C

Pelvic inflammatory disease (PID) is a common disorder caused by infection with either gonococci (the most common cause), chlamydiae, or enteric bacteria. Gonococcal infection, seen microscopically as gram-negative intracellular diplococci, begins in the Bartholin's glands and then spreads upward to involve the fallopian tubes and tuboovarian regions. This produces PID, which is characterized by pelvic pain, fever, adnexal tenderness, and pain when the cervix is manipulated. Complications of PID include peritonitis from rupture of a tuboovarian abscess, infertility, and intestinal obstruction.

280. A woman with a history of breast cancer. Which of the following is medically contraindicated for this woman?

- A. Condoms
- B. Copper containing intrauterine device
- C. Laparoscopic tubal ligation
- D. Progestin-only contraceptive pills

Answer: D

Progestin only pills are contraindicated in women with unexplained uterine bleeding or breast cancer. Both condoms and the diaphragm, used in conjunction with spermicides, are effective contraceptives. The diaphragm should carefully fit in the vagina and is therefore not applicable to women with anatomic distortion of the vagina. Latex condoms should not be used in women with a known latex allergy. Manufacturer's contraindications to IUD use include: history of acute, chronic or recurrent pelvic inflammatory disease (PID), multiple sexual partners, or ectopic pregnancy or condition predisposing to ectopic pregnancy. Wilson's disease or copper allergy are contraindications to the use of a copper-containing IUD. Although tubal ligation may be considered in the patient with chronic obstructive lung disease, the risk of general anesthesia and surgical intervention in this patient is probably high enough to indicate a more conservative approach, such as the use of an IUD.

281. An 18-year-old woman presents to with pelvic pain, dysuria, and a purulent yellowish-green vaginal discharge. A Gram's stain of cervical secretions shows gram-negative diplococci. Which of the following is the most likely diagnosis?

- A. Chlamydia
- B. Endometritis
- C. Gonorrhea
- D. Trichomoniasis

Answer: C

1. **Gonorrhea** is caused by the bacteria *Neisseria gonorrhoeae*.
2. It typically infects epithelia of the urethra, cervix, rectum, pharynx, or conjunctivae, causing irritation or pain and purulent discharge.
3. Dissemination to skin and joints, which is uncommon, causes sores on the skin, fever, and migratory polyarthritis or pauciarticular septic arthritis.
4. Diagnosis is by microscopy, culture, or nucleic acid amplification tests.
5. Gram stain is sensitive and specific for gonorrhea in men with urethral discharge; gram-negative intracellular diplococci typically are seen. Gram stain is much less accurate for infections of the cervix, pharynx, and rectum and is not recommended for diagnosis at these sites.
6. Several oral or injectable antibiotics can be used, but drug resistance is an increasing problem.

282. During the initial examination of a term newborn infant, you notice a fully erupted mandibular incisor. It appears normal in shape and position, but is very loose. Appropriate management of this condition includes which of the following?

- A. Dental consultation and removal
- B. Dental consultation and splinting
- C. Genetics evaluation and karyotype
- D. Parental reassurance and observation

Answer: A

A natal tooth is a fairly unusual finding, occurring in about one of every two to three thousand live births. The tooth is usually a primary mandibular incisor, but can be a supernumerary tooth as well. Although it may be uncomfortable for the mother to breast-feed an infant with a natal tooth, the primary concern is whether the tooth is loose, as an unstable natal tooth may fall out and be aspirated by the infant. Extraction by a pediatric dentist is the usual course when the tooth is loose; however, extraction can lead to abnormal spacing of the remaining teeth as they erupt. A midline or markedly pointed tooth can be associated with certain genetic conditions, and should result in further evaluation.

283. A 30-year-old G1P0 with a twin gestation at 25 weeks presents to labor and delivery complaining of irregular uterine contractions and back pain. She reports an increase in the amount of her vaginal discharge, but denies any rupture of membranes. She reports that earlier in the day she had some very light vaginal bleeding, which has now resolved. On arrival to labor and delivery, she is placed on an external fetal monitor, which indicates uterine contractions every 2 to 4 minutes. She is afebrile and her vital signs are all normal. Her gravid uterus is nontender. The nurse calls you to evaluate the patient. Which of the following is the most appropriate first step in the evaluation of vaginal bleeding in this patient?

- A. Labs to evaluate for disseminated intravascular coagulopathy
- B. Ultrasound to check placental location
- C. Urine culture to check for urinary tract infection
- D. Vaginal examination to determine cervical dilation

Answer: B

The concern with this patient who presents with a twin gestation and symptoms of bleeding, cramping, and increased vaginal discharge is preterm labor. Intravenous hydration is appropriate because dehydration can be a cause of premature contractions and uterine irritability. Urinary infections can be associated with uterine contractions, and therefore a urinalysis and urine culture should be obtained. Infection caused by group B streptococci can be associated with preterm labor, so a culture to detect this organism should be obtained. Before performing a digital examination on this patient to determine her cervical status, an ultrasound should be performed to rule out placenta previa in light of the history of vaginal bleeding.

284. Which of the following is used as the first step in treatment endometriosis?

- A. Danazol
- B. Leuprolide acetate
- C. NSAIDs
- D. OCPs

Answer: C

Signs and symptoms of Endometriosis: Cyclic pelvic pain, abnormal heavy bleeding and nodular uterus or adnexal masses. Diagnosis: laparoscopy (dark brown clusters of lesions called Endometrioma "Chocolate Cyst") Treatment: NSAIDs, OCPs, Danazol "androgen derivative", leuprolide acetate "leupron" both are used to decrease FSH & LH. source: Master the boards: USMLE STEP 2 CK

285. A fibroid was found in a healthy asymptomatic 52-year-old woman. The fibroid size is 4x5cm. Which of the following is the best next step for this woman?

- A. Follow up every two months with ultrasound and CBC
- B. Follow up regularly
- C. Immediate hysterectomy
- D. Immediate myomectomy

Answer: B

~Conservative ttt (wait and watch) if :-symptoms are absent or minimal-fibroid <6-8cm or stable in size-not sub-mucosal (sub-mucosal fibroids are more likely to be symptomatic)-currently pregnant due to increased risk of bleeding (follow-up US if symptoms progress).
~Treatment only if symptomatic, rapidly enlarging, menorrhagia, menometrorrhagia, or intracavitary.*we perform annual pelvic exams and, in patients with anemia or menorrhagia, check a complete blood count. Uptodate references: Toronto notes 2017, GY16.

286. Which of the following could be prevented by using hormonal replacement therapy?

- A. Hepatic adenoma
- B. Osteoporosis

- C. Stroke
- D. Thromboembolism

Answer: B

Indications of HRT: primary indication is treatment of menopausal symptoms (short-term). It can be use to prevent/treat osteoporosis (long-term) and premature ovarian failure. Reference:
http://www.guidelines.co.uk/obstetrics_gynaecology_urology_mm_hrt#.Vkl_qM

287. A 34-year-old female complaining absence of menstrual bleeding for 10 months. She has a history of 3 vaginal deliveries but her was done D&C after the third delivery because of the retained part of the placenta. She is smoking 2 packs/per day. Which of the following is the risk factor of developing this disease?

- A. Absence of menstrual bleeding
- B. D&C
- C. Numerous vaginal deliveries
- D. Smoking

Answer: B

"Asherman's Syndrome" is a condition characterized by adhesions and/or fibrosis of the endometrium particularly but can also affect the myometrium. It is often associated with dilation and curettage of the intrauterine cavity. A number of other terms have been used to describe the condition and related conditions including: intrauterine adhesions (IUA), uterine/cervical atresia, traumatic uterine atrophy, sclerotic endometrium, endometrial sclerosis, and intrauterine synechiae. It is often characterized by a decrease in flow and duration of bleeding (absence of menstrual bleeding, little menstrual bleeding, or infrequent menstrual bleeding) and become infertile. Menstrual anomalies are often but not always correlated with severity: adhesions restricted to only the cervix or lower uterus may block menstruation. Pain during menstruation and ovulation is sometimes experienced and can be attributed to blockages. It has been reported that 88% of AS cases occur after a D&C is performed on a recently pregnant uterus, following a missed or incomplete miscarriage, birth, or during an elective termination (abortion) to remove retained products of conception. [ncy complications. Reference: Uptodate e-medicine.medscape.com](http://ncymedicine.medscape.com) Curettage after delivery or abortion may result in endometrial injury and subsequent development of intrauterine adhesions, termed Asherman syndrome. The development of uterine synechiae may also be associated with prior endometrial ablation procedures. Intrauterine adhesions may make future diagnostic curettage more difficult and increase the risk of uterine perforation. Previous procedures such as endometrial ablation may also increase the risk of cervical stenosis. Hysteroscopy is the gold standard for diagnosis.

288. A 22-year-old girl is brought to the physician by her mother because she has not started to menstruate yet. Examination shows Tanner stage IV breast development and pubic hair, normal external female genitalia, and shaved axillary hair. Which of the following is the most likely diagnosis?

- A. Complete androgen insensitivity syndrom
- B. Kallman syndrome
- C. Mullerian agenesis
- D. Turner syndrom

Answer: C

Mullerian agenesis

1. 46 XX (no uterus)
2. Normal female phenotype Normal testosterone
3. They experience breast development and body hair grown at puberty but do not menstruate due to a congenitally absent or underdeveloped uterus, cervix, and upper vagina.
4. Normal pubic and axillary hair and female testosterone levels

289. A 57-year-old woman comes to the office with complaints of postmenopausal bleeding. Her last menarche was 4 years ago. Which of the following would be the best next step in this woman?

- A. Endometrial biopsy
- B. Prolactin
- C. TSH
- D. b-hCG

Answer: A

This woman most likely has endometrial cancer. The best next step for a postmenopausal bleeding is the Endometrial biopsy to exclude endometrial cancer. TSH and prolactin level would be the best next step in a premenopausal woman. b-hCG is the best next step in a premenopausal woman with amenorrhea.

290. Which of the following is the most appropriate management of postpartum hemorrhage?

- A. Dilatation and curettage
- B. Hysterectomy
- C. Oxytocin infusion
- D. Uterine artery embolization

Answer: C

1. Postpartum hemorrhage (PPH) is an obstetrical emergency. It is a major cause of maternal morbidity.
2. Postpartum Hemorrhage is defined as blood loss of more than 500 mL following vaginal delivery or more than 1000 mL following cesarean delivery.
3. Uterine atony is the most common cause of postpartum hemorrhage.

Treatment:

1. Treatment depends on etiology of the hemorrhage.
2. Uterine massage; if that fails, give oxytocin.
3. If hemorrhage persists, consider packing, surgical procedures, and transfusion of blood products.

291. A woman at 37 weeks presents to the hospital with heavy vaginal bleeding and painful uterine contractions. Quick bedside ultrasound reveals a fundal placenta. The patient's vital signs are blood pressure 140/92 mm Hg, pulse 118 beats per minute, respiratory rate 20 breaths per minute, and temperature 37°C (98.6°F). The fetal heart rate tracing reveals tachycardia with decreased variability and a few late decelerations. An emergency cesarean section delivers a male infant with Apgar scores of 4 and 9. With delivery of the placenta, a large retroplacental clot is noted. The patient becomes hypotensive, and bleeding is noted from the wound edges and her IV catheter sites. Which of the following blood products will most quickly resolve her cause of hemorrhage?

- A. Cryoprecipitate
- B. Fresh frozen plasma
- C. Packed red blood cells
- D. Platelets

Answer: A

This patient has a large placental abruption which is the most common cause of consumptive coagulopathy in pregnancy. The bleeding described signifies that the patient has a significant coagulopathy with hypofibrinogenemia. Prompt and vigorous transfusion is needed. Packed red blood cells will restore blood volume and increase oxygen carrying capacity. Fresh frozen plasma (FFP) contains about 600-700 mg of fibrinogen and will promote clotting. Cryoprecipitate contains clotting factors and fibrinogen but in much less amount (200 mg) than FFP and has no advantage over the use of FFP in this bleeding patient. Recombinant factor VII can be used for the treatment of severe obstetrical hemorrhage but will not be effective if fibrinogen is low. Platelet transfusion is considered in bleeding patients with platelets less than 50,000.

292. A 26-year-old G1 undergoes a multiple maternal marker screening test at 16 weeks of pregnancy. Her MSAFP level returns and is elevated. This patient is extremely concerned and comes into your office for additional counseling and recommendations. Which of the following should you tell this patient?

- A. An elevated serum AFP level indicates that she is at risk for having a baby with Down syndrome.
- B. An ultrasound should be performed to confirm the gestational age of the fetus and to rule out any fetal anomalies.
- C. Most women who have an elevated MSAFP have a fetus with a neural tube defect.
- D. She is probably going to have twins.
- E. Unexplained elevated MSAFP levels have no prognostic value for her pregnancy.

Answer: B

Down syndrome is associated with decreased levels of MSAFP levels. An elevated MSAFP screening test requires further workup to rule out a fetal abnormality such as a neural tube or abdominal wall defect, which would allow leakage of this fetal protein into the maternal circulation. Elevated maternal AFP levels can also be found in multifetal gestations or can be attributed to incorrect dating of the pregnancy. Amniotic fluid AFP levels are obtained via an amniocentesis if a targeted ultrasound does not indicate a fetal anomaly that would explain the elevated AFP levels obtained on triple test. MSAFP screening will pick up 90% of neural tube defects, but its positive predictive value is only 2% to 6%. Therefore most pregnant women with elevated serum AFP levels will not have fetuses with neural tube defects. Studies indicate that unexplained high serum AFP levels (ie, no obvious fetal malformations detected on sonogram) are associated with adverse pregnancy outcomes such as low birth weight, placental abruption, oligohydramnios, and fetal death in utero.

293. A 30-year-old woman presents to your office for her well-woman examination and contraception. She has two prior vaginal deliveries without any complications. Her medical history is significant for deep venous thrombosis in her right leg after her last delivery. Her family history is significant for coronary heart disease in her father and breast cancer in her mother diagnosed at the age of 62 years. After a discussion of her choices for contraception she opts for a progestin-only pill (mini-pill). Which of the following is true regarding the use of progestin-only pills?

- A. Contraindicated in women with migraine headaches
- B. Decrease risk of ovarian cysts
- C. Inhibition of ovulation is the main mechanism of action
- D. May worsen acne

Answer: D

Progestin-only pills are ideal for women with contraindications to estrogen and increased risk of cardiovascular complications, such as women with a history of thrombosis, hypertension, migraine headaches, or smokers over the age of 35 years. They are also a good choice for lactating women. Mini-pills do not reliably inhibit ovulation and their effectiveness relies more heavily on cervical mucus alterations and endometrial effects. Irregular bleeding is a common side effect as is the risk of contraceptive failure. They have a higher pregnancy rate than combination pills or other methods such as injectable progestins or intrauterine devices. With failures there is an increased risk of ectopic pregnancy. Another disadvantage is that it needs to be taken at the same time every day. If a mini-pill is taken even 4 hours late, an additional contraceptive must be used for the next 2 days. The mini-pill does not improve acne and may actually worsen it. Functional ovarian cysts develop with a greater frequency in women using progestin-only pills, but intervention is rarely needed.

294. Soon after birth, a newborn undergoes heart transplantation surgery at a local medical center. Transplantation of tissue and organs is a common procedure whose success depends largely on the “self” versus “nonself” interactions. Survival of allografts is increased by choosing donors with few major histocompatibility complex (MHC) mismatches compared to recipients and by use of immunosuppression in recipients. Which of the following procedures is the most useful measure of immunosuppression in recipients?

- A. Administration of corticosteroids to recipient
- B. Administration of immunoglobulin to recipient
- C. Destruction of donor B cells
- D. Destruction of donor T cells
- E. Lymphoid irradiation of donor

Answer: A

Allograft rejection is primarily a T-cell response to foreign tissue. Many immunosuppressive measures exist, including cyclosporine, tacrolimus, sirolimus, azathioprine, monoclonal antibodies, radiation, and corticosteroids. Commonly used, the corticosteroids reduce inflammatory response and are generally administered by cytotoxic drugs, such as cyclosporine. Corticosteroids function as immunosuppressive agents by inhibiting cytokine production, such as IL-1 and TNF, and also by lysing certain T-cell types. Lymphoid irradiation is usually done so that the bone marrow is shielded. This removes lymphocytes from lymph nodes and spleen while allowing the patient to have the capacity to regenerate new T and B cells. Likewise, antilymphocyte globulin will destroy the recipient's lymphocytes, especially T cells. Destruction of donor B cells and T cells would not play a role in the immunosuppression of the graft recipient. In graft crises, monoclonal antibody to CD3 is sometimes given. This targets mature T lymphocytes for destruction.

295. Which of the following is a risk factor for placenta previa?

- A. Age 20-35 years old
- B. Alcohol
- C. Previous placenta previa
- D. Race

Answer: C

The following have been identified as risk factors for placenta previa:

Previous placenta previa (recurrence rate 4–8%), caesarean delivery, myomectomy or endometrium damage caused by D&C.

Women who are younger than 20 are at higher risk and women older than 35 are at increasing risk as they get older.

Women who have had previous pregnancies (multiparity), especially a large number of closely spaced pregnancies, are at higher risk due to uterine damage.

Smoking during pregnancy; cocaine use during pregnancy

Women with a large placenta from twins or erythroblastosis are at higher risk.

Race is a controversial risk factor, with some studies finding that people from Asia and Africa are at higher risk and others finding no difference.

Placental pathology (Vellamentous insertion, succinuriate lobes, bipartite i.e. bilobed placenta etc.)

Baby is in an unusual position: breech (buttocks first) or transverse (lying horizontally across the womb).

Placenta previa is itself a risk factor of placenta accreta.

296. The most common cause of endocarditis following a dental procedures?

- A. Staphylococcus aureus
- B. Staphylococcus epidermidis
- C. Streptococcus pyogenes
- D. Viridans streptococci

Answer: D

Endocarditis

1. Bacterial infection of endocardium (i.e., inner lining of heart), with or without valve involvement.

2. **Subacute endocarditis** caused by viridans streptococci, Enterococcus, fungi, and Staphylococcus epidermidis

3. **Clinical picture:** fever (very high in acute form), chills, night sweats, fatigue, arthralgias; possible new murmur; small, tender nodules on finger and toe pads (i.e., Osler nodes); peripheral petechiae (i.e., Janeway lesions), subungual petechiae (i.e., splinter hemorrhages), retinal hemorrhages (i.e., Roth spots)

4. **Viridans group streptococci** (most commonly *S. mutans*) are **the most common cause of endocarditis following dental procedures.**

297. A woman doesn't want to get pregnant for years, however, she doesn't want to be sterile. Which of the following is the most longlasting method of contraception for her?

- A. Depot medroxyprogesterone acetate injection
- B. Hormonal intrauterine device
- C. Intrauterine device with copper
- D. Subdermal contraceptive implant

Answer: C

Methods of long acting reversible contraception:

Available LARC methods include IUDs and the subdermal implant:

1- Hormonal intrauterine device (Mirena - also known as IUC or IUS)

2- Nonhormonal intrauterine device with copper (US -ParaGard)

3- Subdermal contraceptive implant (US - Nexplanon/Implanon/Implanon NXT; internationally - Norplant/Jadelle)

4- Some shorter-acting methods are sometimes considered LARC:

5- Depot medroxyprogesterone acetate injection (DMPA; US - - Depo Provera shot) - Combined injectable contraceptive

298. A 19-year-old woman comes to the emergency room and reports that she fainted at work earlier in the day. She has mild vaginal bleeding. Her abdomen is diffusely tender and distended. In addition, she complains of

shoulder and abdominal pain. Her temperature is 36.8°C, pulse rate is 120/min, and blood pressure is 96/50 mmHg. Which of the following would be the best next step to confirm the diagnosis?

- A. Culdocentesis
- B. Dilation and curettage
- C. Laparoscopy
- D. Posterior colpotomy
- E. Pregnancy test

Answer: A

This patient is most likely has an ectopic pregnancy. The best next step to confirm the diagnosis is culdocentesis. Culdocentesis is a medical procedure involving the extraction of fluid from the pouch of Douglas (a rectouterine pouch posterior to the vagina) through a needle. It can be one diagnostic technique used in identifying pelvic inflammatory disease (in which case purulent fluid will be extracted) and ruptured ectopic pregnancies that cause hemoperitoneum.

299. A 33-year-old pregnant woman comes at 39 weeks of gestation with painless vaginal bleeding. The bleeding began two hours ago and has delivered a substantial amount of blood with clots. She doesn't have any uterine contractions and the fetal heart rate is 164 b/min. Which of the following is most likely diagnosis in this woman?

- A. Abruptio placenta
- B. Attempted to abort herself.
- C. Placenta previa
- D. Premature rupture of membranes

Answer: C

Placenta praevia is when the placenta attaches inside the uterus but near or over the cervical opening. Symptoms include vaginal bleeding in the second half of pregnancy. The bleeding is bright red and tends not to be associated with pain.

300. A pregnant woman is discovered to be an asymptomatic carrier of *Neisseria gonorrhoeae*. A year ago, she was treated with penicillin for a gonococcal infection and developed a severe allergic reaction. Which of the following is the treatment of choice at this time?

- A. Ampicillin
- B. Chloramphenicol
- C. Spectinomycin
- D. Tetracycline

Answer: C

Spectinomycin is the treatment of choice for pregnant women who have asymptomatic N gonorrhoeae infections and who are allergic to penicillin. Erythromycin is another drug that is effective in treating asymptomatic gonorrhea. Although tetracycline is an effective alternative to penicillin, its use is generally contraindicated in pregnancy. Administration of chloramphenicol is not recommended to treat women, pregnant or not, who have cervical gonorrhea, and the use of ampicillin or penicillin analogues is contraindicated for penicillin-allergic patients.

301. A 33-year-old woman at 10 weeks gestation presents to the emergency room with vaginal bleeding and lower abdominal pain. Examination shows an effaced and dilated cervix with visible products of conception.

Which of the following is the most likely diagnosis?

- A. Complete abortion
- B. Inevitable abortion
- C. Missed abortion
- D. Threatened abortion

Answer: B

Inevitable abortion presents as vaginal bleeding, lower abdominal cramps, and a dilated cervix. Ultrasound shows a ruptured/collapsed gestational sac with no fetal cardiac motion.

302. There is an assessment of delivery by cesarean section or vaginal delivery. Which of the following is the most important factor for correct assessment?

- A. Cervical dilation
- B. Fetal station
- C. Force of contractions.
- D. Number of contractions

Answer: B

Evaluation of status of labor, including a description of uterine activity, cervical dilation and effacement, and fetal station and presentation, unless vaginal exam deferred; evaluation of fetal status, including interpretation of auscultation or electronic fetal monitoring strips,

303. What is Adenomyosis?

- A. Endometrial tissue in the myometrium of the uterus.
- B. Presence of endometrial tissue and gland in Cervix
- C. Presence of endometrial tissue and gland in Uterine Ligament
- D. Presence of endometrial tissue and gland out Uterus

Answer: A

It occurs when endometrial tissue, which normally lines the uterus, exists within and grows into the muscular wall of the uterus.

304. A 28-year-old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the most likely the cause of her symptoms?

- A. E. coli
- B. St. aureus
- C. St. saprophitucs
- D. Str. pneumonia

Answer: B

Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, underlying cancer should be sought promptly.

305. A woman comes to the office because of failing to get pregnant after regular unprotected intercourse with her husband for 16 months. Semen analysis of her husband was normal. Her BMI is 35 kg/m². Her LH level is high and FSH level is low. Which of the following is the best recommendation to her?

- A. Reduce weight
- B. Reduce weight and add clomiphene and metformin
- C. Reduce weight and add oral contraceptive pills
- D. Reduce weight and add spironolactone

Answer: B

This woman most likely has polycystic ovarian syndrome based on her laboratory analysis. The best next step to get pregnant for her is reduced weight, metformin and add clomiphene to induce ovulation. Oral contraceptive pills and spironolactone are not induced ovulation.

306. A gynecologist sees atypical invasive cell on colposcopy in a woman. The woman feels normally. Which of the following is best next step for this woman?

- A. Clinical staging
- B. Conization
- C. Hysterectomy
- D. Surgical

Answer: A

After colposcopic biopsy, In invasive cells staging is needed. In contrast to cervical intraepithelial neoplasia, cervical cancer represents true invasion of cells beyond the epithelium into surrounding tissue. Cervical cancer may be detected in a biopsy performed during colposcopy for an abnormal Pap smear, or it may be visible to the naked eye when the doctor performs a speculum exam. After making a diagnosis, classify the stage of the cancer according to how far the disease has spread into the lining of the cervix, throughout the cervix, or beyond. Doctors use these classifications to determine treatment and prognosis.

References: http://www.umm.edu/health/medical/reports/articles/cervical_cancer

307. A 60-year-old patient with long-standing type 2 diabetes mellitus presents with complaints of pain in the left ear with purulent drainage. On physical examination, the patient is afebrile. The pinna of the left ear is tender, and the external auditory canal is swollen and edematous. The white blood cell count is normal. Which of the following organisms is most likely to grow from the purulent drainage?

- A. *Candida albicans*
- B. *Haemophilus influenzae*
- C. *Pseudomonas aeruginosa*
- D. *Streptococcus pneumoniae*

Answer: C

Ear pain and drainage in an elderly diabetic patient must raise concern about malignant external otitis. The swelling and inflammation of the external auditory meatus strongly suggest this diagnosis. This infection usually occurs in older, poorly controlled diabetics and is almost always caused by *P. aeruginosa*. It can invade contiguous structures including facial nerve or temporal bone and can even progress to meningitis. *S. pneumoniae*, *H. influenzae* and *M. catarrhalis* frequently cause otitis media, but not external otitis. *Candida albicans* almost never affects the external ear.

308. A woman in her 4th month of pregnancy comes to her doctor with a complaint of spotty vaginal bleeding for the past 3 days. Bleeding has been accompanied by mild nausea and vomiting over the past week. On pelvic exam, you note her uterus as being much larger than expected for her the estimated gestational age of the fetus. You perform an intravaginal ultrasound which shows a "snowstorm" appearance" and no fetal heartbeat can be detected. Which of the following is most likely to be elevated in the patient's serum?

- A. Estradiol
- B. Human chorionic gonadotropin
- C. Human placental lactogen
- D. Lactate dehydrogenase

Answer: B

Hydatidiform moles are one of the most common but benign forms of gestational trophoblastic disease. A hydatidiform mole can either be complete or partial. The absence or presence of a fetus or embryo is used to distinguish complete from partial moles: complete moles are associated with the absence of a fetus. Partial moles usually occur with an abnormal fetus or may even be associated with fetal demise. In the classic case of molar pregnancy, quantitative analysis of beta-HCG shows hormone levels in both blood and urine greatly exceeding those produced in a normal pregnancy at the same stage. Ultrasound will show enlarged uterus, multiple cystic structures classically give a "snow storm" or "bunch of grapes" type appearance.

Ref: <https://radiopaedia.org/articles/hydatidiform-mole>

309. A healthy 30-year-old G1P0 at 41 weeks gestational age presents to labor and delivery at 11:00 PM because she is concerned that her baby has not been moving as much as usual for the past 24 hours. On arrival to labor and delivery, her blood pressure is initially 140/90 but decreases with rest to 120/75. Her prenatal chart indicates that her baseline blood pressures are 100 to 120/60 to 70 mm Hg. She denies any complications during the pregnancy. She denies headache, rupture of membranes, regular uterine contractions, or vaginal bleeding. The patient is placed on an external fetal monitor. The fetal heart rate baseline is 180 beats per minute with absent variability. There are uterine contractions every 3 minutes accompanied by late fetal heart rate decelerations. Physical examination indicates that the cervix is long/closed/-2. The patient's urinalysis shows no proteinuria. Which of the following is the appropriate plan of management for this patient?

- A. Administer intravenous MgSO₄ and induce labor with Pitocin.
- B. Admit the patient and schedule a cesarean section in the morning, after the patient has been NPO for 12 hours.
- C. Proceed with emergent cesarean section.
- D. Ripen cervix overnight with prostaglandin E₂ (Cervidil) and proceed with Pitocin induction in the morning.

Answer: C

A fetal heart rate tracing indicating tachycardia, decreased or absent variability, and persistent late decelerations is indicative of fetal metabolic acidosis and hypoxia. Prompt intervention and delivery is indicated.

There is no indication for administering MgSO₄ since the patient is not preeclamptic; her blood pressure is not elevated and she does not have proteinuria. Since imminent delivery of the fetus is indicated by the nonreassuring fetal heart rate pattern, there is no role for administering cervical ripening agents or Pitocin.

310. A 20-year-old G1 at 41 weeks has been pushing for 2 hours. The fetal head is at the introitus and beginning to crown. It is necessary to cut an episiotomy. The tear extends through the sphincter of the rectum, but the rectal mucosa is intact. How should you classify this type of episiotomy?

- A. First-degree
- B. Fourth-degree
- C. Second-degree
- D. Third-degree

Answer: D

A first-degree tear involves the vaginal mucosa or perineal skin, but not the underlying tissue. In a second-degree episiotomy, the underlying subcutaneous tissue is also involved, but not the rectal sphincter or rectal mucosa. In a third-degree tear, the rectal sphincter is affected. A fourth-degree episiotomy involves a tear that extends into the rectal mucosa.

311. Which of the following is a correct action after rupture of condom during sexual intercourse?

- A. Contraception
- B. Douching
- C. Topical antibiotics
- D. Topical spermicides

Answer: A

EMERGENCY CONTRACEPTION:

Hormonal EC (Yuzpe or Plan B, usually 2 doses taken 12 h apart) or post-coital IUD insertion;

Hormonal EC is effective if taken within 72 h of unprotected intercourse (reduces chance of pregnancy by 75-85%), most effective if taken within 24 h, does not affect an established pregnancy;

Post-coital IUDs inserted within 5 d of unprotected intercourse are significantly more effective than hormonal EC (reduces chance of pregnancy by ~99%);

Yuzpe® method = 98% (within 24 h), decreases by 30% at 72 h;

Plan B™ levonorgestrel only = 98% (within 24 h), decreases by 70% at 72 h;

Reference: First Aid for the OBGYN clerkship, page 201, 3rd edition

312. A couple came to your clinic. They are trying to conceive for the last 3 months with no success. The girl had appendectomy before marriage. She also has an aunt who is her uncle's wife (not blood-related) with Down syndrome. Which of the following is the best treatment for her?

- A. Administer clomiphene for ovulation
- B. Advice to have at least 12 months of regular unprotected sexual intercourse
- C. Diagnostic laparoscopy
- D. Semen analysis

Answer: B

Infertility is "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (and there is no other reason, such as breastfeeding or postpartum amenorrhoea). Primary infertility is infertility in a couple who have never had a child. Secondary infertility is failure to conceive following a previous pregnancy. Infertility may be caused by infection in the man or woman, but often there is no obvious underlying cause.

313. In pregnant woman developed a critical condition, caused by acute blood loss on the background of uterine atony. Which of the following laboratory tests needed for targeted infusion-transfusion therapy, taking into account the physiology of pregnancy?

- A. Concentration of hemoglobin and hematocrit
- B. Plasma electrolytes
- C. Total protein of blood
- D. Urea and creatinine

Answer: A

The hematocrit also known by several other names, is the volume percentage (vol%) of red blood cells in the blood. It is normally 47% for men and 42% for women. It is considered an integral part of a person's complete blood count results, along with hemoglobin concentration, white blood cell count, and platelet count. Because the purpose of red blood cells is to transfer oxygen from the lungs to body tissues, a blood sample's hematocrit—the red blood cell volume percentage—can become a point of reference of its capability of delivering oxygen. The measure of a subject's hematocrit levels can indicate possible disease. An abnormally low hematocrit may suggest anemia. Pregnancy may lead to women having additional fluid in blood. This could potentially lead to a small drop in hematocrit levels. So additionally concentration of hemoglobin should be checked too.

314. A 14-year-old girl complains of pain in vaginal area and lower abdomen that last for 3-4 days and have been observed for 3 months about the same time. Each time pain is getting worse. Objectively: mammary glands are developed, hairiness corresponds to the age. The vaginal membrane is intact, cyanotic and protruded. She has never had menstruation. She has been diagnosed with primary amenorrhea. Which of the following is the most likely cause of her symptoms?

- A. Imperforate hymen
- B. Pregnancy
- C. Sexual development delay
- D. Turners syndrome

Answer: A

An imperforate hymen is a congenital disorder where a hymen without an opening completely obstructs the vagina. It is caused by a failure of the hymen to perforate during fetal development. It is most often diagnosed in adolescent girls when menstrual blood accumulates in the vagina and sometimes also in the uterus. It is treated by surgical incision of the hymen.

315. A bilateral ovarian masses are identified on pelvic examination of a 40-year-old woman. Ultrasound examination reveals multiloculated cystic masses involving both ovaries. The patient is treated with total abdominal hysterectomy with removal of both adnexa. Pathologic examination demonstrates papillary carcinoma producing serous fluid. Which of the following tumor markers would be most useful in monitoring for recurrence?

- A. Alpha-fetoprotein
- B. CA-125
- C. CEA
- D. PSA
- E. S-100

Answer: B

CA-125 is the most frequently used biomarker for ovarian cancer detection. Carcinoembryonic antigen (CEA) is a glycoprotein associated with many cancers including adenocarcinomas of the colon, pancreas, lung, stomach, and breast. Alfa-fetoprotein (AFP) is a glycoprotein synthesized by the yolk sac and the fetal liver and is associated with yolk sac tumors of the testes and liver cell carcinomas. Prostatespecific antigen (PSA) is associated with cancer of the prostate.

316. A woman has cervical cancer. Which of the following is the first lymph nodes which can have metastases from cervical cancer?

- A. Common iliac
- B. External iliac
- C. Paraaortic
- D. Uterine

Answer: B

Lymph drain: Ovaries/testes into paraaortic Lymph nodes
Scrotum/distal 1/3 of vagina - superficial inguinal lymph nodes- then deep femoral nodes then external iliac lymph nodes clitoral region - passes directly to the deep femoral nodes All other – into external inguinal/hypogastric/obturator lymph nodes Internal iliac – rectum and superior pectinate line Inferior mesenteric – inferior pectinate, sigmoid and descending

317. Which of the following complications are associated with smoking during pregnancy?

- A. Breech presentation
- B. Gestational diabetes
- C. Low birth weight
- D. Uterine rupture

Answer: C

1. Cigarette smoking during pregnancy is the most important modifiable risk factor associated with adverse pregnancy outcomes.
2. In addition, smoking and secondhand smoke exposure increase the risk of infertility, placental abruption, preterm premature rupture of membranes (PPROM), and placenta previa.
3. Smoking during pregnancy is a well-established determinant of fetal growth and risk of low birthweight.
4. Maternal smoking in pregnancy may influence the development of the fetal respiratory system, as suggested by findings of a relation between maternal smoking in pregnancy and lung function impairment in newborns
5. Maternal smoking in pregnancy increases the risk of asthma during the first 7 years of life, and only a small fraction of the effect seems to be mediated through fetal growth.

318. A woman wants babies but she doesn't want to get pregnant for several years and doesn't want to take any drugs. Which of the following is the best contraceptive method for her?

- A. Contraceptive implant
- B. Copper intrauterine device
- C. Depo-Provera injection

D. Intrauterine hormonal system (IUS)

Answer: B

The best long-term reversible contraception is Copper intrauterine device. Intrauterine device (IUD) with copper also known as intrauterine coil, is a type of intrauterine device which contains copper. It is used for birth control and emergency contraception within five days of unprotected sex. It is one of the most effective forms of birth control with a one-year failure rate around 0.7%. The device is placed in the uterus and lasts three to ten years. It may be used by women of all ages regardless of whether or not they have had children. Following removal, fertility quickly returns. Laparoscopic sterilization is irreversible sterilization.

319. Which of the following medication is used to accelerate fetal lung maturity?

- A. Betamethasone
- B. Dexamethasone
- C. Indomethacin
- D. Propranolol

Answer: A

1. **The most important complication of Preterm premature rupture of membranes (PPROM) is pulmonary hypoplasia (immaturity).**
2. **Steroids** are used to enhance fetal lung maturity when premature rupture of membranes occurs **at less than 34-weeks of gestation**.
3. In women at risk for preterm delivery, antenatal corticosteroids are frequently administered **to prevent fetal lung immaturity at birth**.
4. Corticosteroids stimulate the synthesis and release of surfactants into the alveolar spaces.
5. Although all corticosteroids can affect this change if therapeutic concentrations reach the fetus, only betamethasone and, to a lesser extent, dexamethasone are routinely used for this purpose.
6. **Betamethasone is the preferred corticosteroid.**

320. A 24-years-old G1P0, she has gestational diabetes which is controlled by diet only and no other medical problems. She is in the 2nd stage of labor which last more than 2 hours, normal uterine contractions, baby's head comes down with each contraction and go back when the uterus is relaxed,

the mother's hip is maximally flexed, one nurse is applying supra-pubic pressure, other nurse applying fundus pressure, the doctor decided to do the episiotomy to deliver the posterior shoulder. Which of the following is associated with maternal and neonatal complications?

- A. Delivery of posterior shoulder
- B. Fundal pressure
- C. Hip flexion
- D. Suprapubic pressure

Answer: B

Fundal pressure during the second stage of labor involves an application of manual pressure to the uppermost part of the uterus directed towards the birth canal in an attempt to assist spontaneous vaginal delivery and avoid prolonged second stage or the need for operative delivery. Fundal pressure has also been applied using an inflatable girdle. A survey in the United States found that 84% of the respondents used fundal pressure in their obstetric centers. There is little evidence to demonstrate that the use of fundal pressure is effective to improve maternal and/or neonatal outcomes. Several anecdotal reports suggest that fundal pressure is associated with maternal and neonatal complications: for example, uterine rupture, neonatal fractures, and brain damage.

<https://www.ncbi.nlm.nih.gov/pubmed/19821352>

321. A 23-year-old G1P0 reports to your office for a routine OB visit at 28 weeks gestational age. Labs drawn at her prenatal visit 2 weeks ago reveal a 1-hour glucose test of 128, hemoglobin of 10.8, and a platelet count of 80,000. All her other labs were within normal limits. During the present visit, the patient has a blood pressure of 120/70 mm Hg. Her urine dip is negative for protein, glucose, and blood. The patient denies any complaints. The only medication she is currently taking is a prenatal vitamin. She does report a history of epistaxis on occasion, but no other bleeding. Which of the following medical treatments should you recommend to treat the thrombocytopenia?

- A. Intravenous immune globulin.
- B. No treatment is necessary.
- C. Oral corticosteroid therapy.
- D. Stop prenatal vitamins.

Answer: B

Asymptomatic pregnant women with platelet counts above 50,000 do not need to be treated, because the count is sufficient to prevent bleeding complications. For severely low platelet counts, therapy can include prednisone, intravenous immune globulin, and splenectomy.

322. A 67-year old woman has a severe osteoporosis? Which of the following is the best treatment option for this woman?

- A. Bisphosphonates
- B. Oral contraceptive pills
- C. Raloxifene
- D. Vitamin D with Calcium

Answer: A

osteoporosis • 1,000-1,500 mg calcium OD, 800-1,000 IU vitamin D, weight-bearing exercise, smoking cessation • bisphosphonates (e.g. alendronate) • selective estrogen receptor modifiers (SERMs): raloxifene (Evista®) – mimics estrogen effects on bone, avoids estrogen-like action on breast and uterine cancer; does not help hot flashes • HRT: second-line treatment (unless for vasomotor instability as well)

323. A 16-year-old girl presents with lower abdominal pain and fever (39.5). On physical examination, a tender adnexal mass is felt. Further questioning in private reveals the following: she has a new sexual partner; her periods are irregular; she has a vaginal discharge. Ultrasound examination has found a mass in the ovary with thick walls. Which of the following is the most likely diagnosis in this patient?

- A. Appendiceal abscess
- B. Ectopic pregnancy
- C. Ovarian cyst
- D. Renal cyst
- E. Tuboovarian abscess

Answer: E

Tubo-ovarian abscesses are one of the late complications of pelvic inflammatory disease and can be life-threatening if the abscess ruptures and results in sepsis. It consists of an encapsulated pus with defined boundaries that forms during an infection of a fallopian tube and ovary. These abscesses are found most commonly in reproductive age women and typically result from upper genital tract infection. The signs and symptoms of a tubo-ovarian abscess are the same as with pelvic inflammatory disease with the exception that the abscess can be found with magnetic resonance imaging, sonography, and x-ray. It also differs from PID in that it can create symptoms of acute-onset pelvic pain.

324. A 33-year-old pregnant woman at 33 weeks of pregnancy comes to office with complaints of vulvular pain and blisters. She said she had similar episodes prior to pregnancy for the last five years. On physical exam, there are vesicles on the left labia minora which are markedly tender to palpation. Which of the following is most likely diagnosis in this woman?

- A. Chancroid lesion
- B. Herpangina
- C. Herpes simplex
- D. Syphilis

Answer: C

Herpes Simplex viruses generally cause mucocutaneous infection, that is, cells of the skin and the mucous membranes are infected. This can manifest as cold sores on the lips, or as genital sores. The typical rash has been described as "dew drops on a rose petal", it consists of vesicles (blisters) that are initially clear and then crust over, typically with yellowish exudate.

These vesicles are generally painful, and further, the area of skin and/or mucosa and the sub-cutaneous tissues in the region where the rash will appear commonly becomes sensitive and even swollen before eruption of the vesicles. Tissue swelling may increase as the rash blossoms, and then, generally over a course of a week to 2 weeks, resolves completely - leaving no scarring.

<http://en.citizendium.org/wiki/Herpes>

325. A 27-year-old patient complains of irritability, tearfulness, depression, and sometimes aggressiveness, headache, nausea, vomiting, and swelling of the mammary glands. The mentioned problems arise 5-6 days before menstruation and gradually progress until menstruation. 3 days after the menstruation these problems disappear. Which of the following is the most likely diagnosis in this woman?

- A. Dysmenorrhea
- B. Premature pathological climacteric
- C. Premenstrual syndrome
- D. Secondary psychogenic amenorrhea

Answer: C

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Often symptoms are present for around six days. A woman's pattern of symptoms may change over time. Symptoms do not occur during pregnancy or following menopause. Diagnosis requires a consistent pattern of emotional and physical symptoms occurring after ovulation and before menstruation to a degree that interferes with normal life. Emotional symptoms must not be present during the initial part of the menstrual cycle. A daily list of symptoms over a few months may help in diagnosis. Other disorders that cause similar symptoms need to be excluded before a diagnosis is made.

326. Which of the following could be seen in laboratory results in woman with menopause?

- A. decreased FSH
- B. decreased HDL
- C. decreased LDL
- D. increased HDL,

Answer: B

1. Natural menopause is defined as the permanent cessation of menstrual periods, determined retrospectively after a woman has experienced 12 months of amenorrhea without any other obvious pathological or physiological cause.
2. It occurs at a median age of 51.4 years in normal women.
3. Menopause before age 40 is considered to be abnormal and is referred to as primary ovarian insufficiency (premature ovarian failure).
4. Symptoms of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, and night sweats.
5. Hot flashes are the most common symptom during the menopausal transition.
6. Menopause results in increased LDL, decreased HDL, osteoporosis, and high risk of heart disease due to lack of effect of estrogen on cholesterol balance, and also due to altered vascular endothelium reactivity due to decreased estrogen.
7. In menopause, the circulating estrogen decreases, resulting in a decrease in the feedback inhibition on the hypothalamic-pituitary axis, resulting in elevation of serum FSH and LH levels.

327. A 18-year-old woman presents with the chief complaint of hirsutism. She has had irregular periods since menarche at the age of 14. She has an ideal body weight and her facies is normal. Physical examination reveals excess back and chest hair. Pelvic examination is normal. The luteinizing hormone (LH) value is elevated. Serum 17-OH progesterone concentrations are highly elevated. Which of the following is the most likely diagnosis?

- A. Congenital adrenal Hyperplasia
- B. Hyperprolactinemia
- C. Hypothyroid
- D. Pheochromocytoma

Answer: A

Hirsutism is a growth of coarse, male-pattern hair in a woman. It is a sign of androgen excess and patients must be evaluated for ovarian or adrenal tumors. The typical workup for hirsutism includes a testosterone level, LH, follicle-stimulating hormone (FSH), 17-OH progesterone, and prolactin. The patient described most likely has 21-hydroxylase deficiency, which is the most common form of congenital adrenal hyperplasia. The highly elevated 17-OH progesterone concentration (which will be even higher after stimulation with synthetic ACTH) supports the diagnosis. Cushing syndrome seems unlikely in a patient without cushingoid features (central obesity). Idiopathic hirsutism applies to patients who have normal adrenal glands and ovaries. Seventy percent of patients with polycystic ovary disease (PCOD) present with hirsutism. They have elevated serum testosterone levels and elevated LH values. Patients with PCOD have slightly elevated levels of 17-OH progesterone after ACTH stimulation. Medications such as bodybuilding steroids, minoxidil, cyclosporine, oral contraceptives, and phenytoin can cause hirsutism.

328. A female complaining absence of menstrual bleeding for 6 months. She has a history of 2 vaginal deliveries but her was done D&C after the second delivery for retained part of the placenta. Which of the following is the most likely diagnosis?

- A. Asherman's syndrome
- B. Kallman's syndrome
- C. Polycystic ovary syndrome
- D. Sheehan syndrome

Answer: A

"Asherman's Syndrome" is a condition characterized by adhesions and/or fibrosis of the endometrium particularly but can also affect the myometrium. It is often associated with dilation and curettage of the intrauterine cavity. A number of other terms have been used to describe the condition and related conditions including: intrauterine adhesions (IUA), uterine/cervical atresia, traumatic uterine atrophy, sclerotic endometrium, endometrial sclerosis, and intrauterine synechiae. It is often characterized by a decrease in flow and duration of bleeding (absence of menstrual bleeding, little menstrual bleeding, or infrequent menstrual bleeding) and become infertile. Menstrual anomalies are often but not always correlated with severity: adhesions restricted to only the cervix or lower uterus may block menstruation. Pain during menstruation and ovulation is sometimes experienced and can be attributed to blockages. It has been reported that 88% of AS cases occur after a D&C is performed on a recently pregnant uterus, following a missed or incomplete miscarriage, birth, or during an elective termination (abortion) to remove retained products of conception. Reference: Uptodate e-medicine.medscape.com Curettage after delivery or abortion may result in endometrial injury and subsequent development of intrauterine adhesions, termed Asherman syndrome. The development of uterine synechiae may also be associated with prior endometrial ablation procedures. Intrauterine adhesions may make future diagnostic curettage more difficult and increase the risk of uterine perforation. Previous procedures such as endometrial ablation may also increase the risk of cervical stenosis.

329. A woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the most likely vaginal pH in this woman?

- A. 2.0-3.0
- B. 3.0-4.0
- C. 5.0-6.0
- D. 6.0-7.0

Answer: C

1. Trichomonas vaginitis is a sexually transmitted infection that classically presents with yellow-green, malodorous, thin, frothy, and occasionally purulent vaginal discharge.
2. It usually causes pruritus, dysuria, and dyspareunia, though it can be asymptomatic.
3. Wet mount microscopy would show highly motile pear-shaped organisms with 3-5 flagella.
4. Vaginal pH 5.0 – 6.0.
5. Metronidazole is the treatment of choice and should be prescribed to both the patient and the partner.

330. A woman with at 39 weeks of gestational pregnancy is on antiviral medication. Her CD count drops from 400 to 200. Which of the following is the best recommendation for her?

- A. Cesarean section if CD4>500
- B. Cesarean section if CD4<350
- C. Vaginal delivery if CD4<350
- D. Vaginal delivery no matter of CD4

Answer: B

In HIV mother always do cesarean section if CD4 <350 or viral load >1000

331. A young woman had an abortion 5 days ago in a hospital. Currently, she complains of weakness, nausea, and chills. During the examination, there is psychomotor agitation and a certain inadequacy of behavior. Her vital signs are temperature - 38.5 ° C, respirations - 30/min, blood pressure - 90/50 mmHg, heart rate - 112 b/min. Which of the following is the most likely diagnosis?

- A. Acute adnexitis
- B. Acute pneumonia
- C. Acute pyelonephritis
- D. Septic shock

Answer: D

This woman most likely has a septic shock after abortion. Septic shock is a serious medical condition that occurs when sepsis, which is organ injury or damage in response to infection, leads to dangerously low blood pressure and abnormalities in cellular metabolism. The primary infection is most commonly caused by bacteria, but also may be by fungi, viruses or parasites. It may be located in any part of the body, but most commonly in the lungs, brain, urinary tract, skin or abdominal organs. It can cause multiple organ dysfunction syndrome (formerly known as multiple organ failure) and death.

332. A 25-year-old married woman complained of fishy watery vaginal discharge. She was diagnosed with vaginal trichomoniasis, and treated successfully with a course of metronidazole. Two weeks later, she returns back having the same symptoms. Which of the following is the most appropriate action?

- A. Add additional antibiotic
- B. Change the drug
- C. Increase the dose
- D. Repeat the drug
- E. Treat both partners

Answer: E

Trichomoniasis is an infectious disease caused by the parasite *Trichomonas vaginalis*. Symptoms can include itching in the genital area, a bad smelling thin vaginal discharge, burning with urination, and pain with sex. Trichomoniasis can be cured with a single dose of prescription antibiotic medication (either metronidazole or tinidazole), pills which can be taken by mouth. To avoid getting reinfected, make sure that all of your sex partners get treated too, and wait to have sex again until all of your symptoms go away (about a week).

333. A 33-year old women presented to the clinic with a 6-year history of bilateral breast pain, the pain get worse during her menses. Physical examination reveals multiple bilateral small breast masses. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Fibrocystic changes

- C. Inflammatory breast carcinoma
- D. Intraductal papilloma

Answer: B

Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly.

334. A 19-year-old sexually active female presents with a chief complaint of severe, stabbing lower abdominal pain. She also complains of foul-smelling vaginal discharge and pain with intercourse. On physical examination, she does not have a fever and complains of both abdominal and adnexal pain. Pelvic examination is difficult to perform secondary to pain, but her cervix appears erythematous with mucopurulent discharge coming from the os. When the bed upon which the patient is lying is jarred, she screams in pain. This patient is most likely suffering from an infection that originated in which of the following structures?

- A. Bladder
- B. Cervix
- C. Fallopian tubes
- D. Ovaries
- E. Rectum

Answer: B

Tubo-ovarian abscesses are one of the late complications of pelvic inflammatory disease and can be life-threatening if the abscess ruptures and results in sepsis. It consists of an encapsulated pus with defined boundaries that forms during an infection of a fallopian tube and ovary. These abscesses are found most commonly in reproductive age women and typically result from upper genital tract infection. The signs and symptoms of a tubo-ovarian abscess are the same as with pelvic inflammatory disease with the exception that the abscess can be found with magnetic resonance imaging, sonography, and x-ray. It also differs from PID in that it can create symptoms of acute-onset pelvic pain. Usually, the infection spread from cervix to the uterus, fallopian tubes, and ovaries

335. A 26-year-old pregnant woman at 34 weeks of pregnancy comes to the office because she doesn't feel any fetal movements. Which of the following is the best next step?

- A. Biophysical profile
- B. Modified Biophysical profile
- C. Non stress test
- D. Stress test

Answer: C

Decreased fetal movements can indicate deterioration in the baby's condition, for example, because of chronic placental insufficiency. Clinical observations indicate that mothers commonly perceive an absence or reduction in the baby's movements for some days before a baby's death. For this reason, fetal movement monitoring is advised by caregivers and is used spontaneously by mothers to assess the baby's well-being. Women's perception of decreased fetal movement is decreased with cigarette smoking, maternal obesity and if the placenta is at the front of the womb. Management strategies in response to perceived decreased fetal movements include early delivery, expectant management with close surveillance of the baby, cardiotocography (visual or analysed by computer to follow the baby's heart beat with uterine activity), ultrasound examination including Doppler ultrasound, and fetal arousal tests (either cardiotocographic or clinical observation where electronic fetal assessment methods are not available) to assess the baby's well-being. Evidence on the effectiveness of monitoring fetal movements and the subsequent management strategies in improving outcomes is limited.

336. A young lady came to clinic complained of severe pain during menses (dysmenorrhea). To treat her symptoms, you advise her to take indomethacin. Which of the following is the correct?

- A. Decrease the formation of arachidonic acid
- B. Induce the synthesis of lipocortins
- C. Inhibitor of Prostaglandin F₂
- D. Inhibitor of phospholipase A

Answer: C

Certain drugs are important in the control of acute inflammation because they inhibit portions of the metabolic pathways involving arachidonic acid. For example, corticosteroids induce the synthesis of lipocortins, a family of proteins that are inhibitors of phospholipase A₂. They decrease the formation of arachidonic acid and its metabolites, prostaglandins and leukotrienes. Aspirin, indomethacin, and other nonsteroidal anti-inflammatory drugs (NSAIDs), in contrast, inhibit cyclooxygenase and therefore inhibit the synthesis of prostaglandins and thromboxanes. The prostaglandins have several important functions. For example, prostaglandin E₂, produced within the anterior hypothalamus in response to interleukin 1 secretion from leukocytes, results in fever. Prostaglandin F₂ causes uterine contractions, which can result in dysmenorrhea. Indomethacin can be used as inhibitor of Prostaglandin F₂.

337. A 36-year-old woman at 32 weeks gestation is brought to the emergency room with sudden onset of heavy vaginal bleeding. She has no pain or uterine contractions. Examination shows an active bright red bleeding from the cervix. Which of the following is absolute contraindication for this pathology?

- A. Pelvic examination
- B. Tocolytics
- C. Transabdominal ultrasound
- D. Vaginal delivery

Answer: A

Placenta Previa 1. Definition: A placenta that is situated in the lower uterine segment. 2. Risk factors: Prior C-sections, grand multiparous, advanced maternal age, multiple gestation, prior placenta previa. 3. Symptoms: Painless, third trimester, bright red bleeding that often ceases in 1–2 hours with or without uterine contractions. 4. On Examination: 1. Fundal level and uterine external palpation are normal. 2. Pelvic examination is absolutely contraindicated (Fatal bleeding). 5. Diagnosis: Transabdominal (Not transvaginal) ultrasound. (Do not perform a vaginal exam) Treatment: 1. Management of placenta previa depends on the severity of bleeding and the age of pregnancy. 2. Resuscitation is the best next step. 3. Bed rest and sexual abstinence. 4. Tocolytics can be used to delay delivery and reduce maternal bleeding risk in cases of a preterm fetus with immature lungs and mild maternal bleeding. 5. When delivery is indicated, perform by caesarean section. 6. Vaginal delivery can be performed with a low-lying placenta.

338. A lady comes with complaints of vaginal discharge, postcoital bleeding, and painful urination. During the examination, there is red cervix. The Gram stain of vaginal discharged shows: Gram-negative diplococci. Which of the following is the most likely diagnosis in this woman?

- A. Bacterial vaginosis
- B. Chlamydia
- C. Gonorrhea
- D. Venereal warts

Answer: C

Gonorrhea, also spelled gonorrhoea, is a sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae*. Many people have no symptoms. Men may have burning with urination, discharge from the penis, or testicular pain. Women may have burning with urination, vaginal discharge, vaginal bleeding between periods, or pelvic pain. Complications in women include pelvic inflammatory disease and in men include inflammation of the epididymis. If untreated, gonorrhea can spread to joints or heart valves. *Neisseria gonorrhoeae*, also known as gonococcus (singular), or gonococci (plural) is a species of gram-negative diplococci bacteria.

339. A woman on the 12 weeks of pregnancy presents with symptoms of severe vomiting and abdominal distention. Ultrasound examination of her uterus has shown large uterus with grapelike vesicles or snowstorm appearance. Her urinary b-hCG level is 6 times higher than normal for her gestational age. Which of the following is the most likely diagnosis in the woman?

- A. Choriocarcinoma
- B. Complete mole
- C. Partial mole
- D. Twins

Answer: B

Hydatidiform moles are one of the most common but benign forms of gestational trophoblastic disease. A hydatidiform mole can either be complete or partial. The absence or presence of a fetus or embryo is used to distinguish complete from partial moles: complete moles are associated with the absence of a fetus. Partial moles usually occur with an abnormal fetus or may even be associated with fetal demise. In the classic case of molar pregnancy, quantitative analysis of beta-HCG shows hormone levels in both blood and urine greatly exceeding those produced in a normal pregnancy at the same stage. Ultrasound will show enlarged uterus, multiple cystic structures classically give a "snow storm" or "bunch of grapes" type appearance. Ref: <https://radiopaedia.org/articles/hydatidiform-mole>

340. Which of the following is the most common effect of smoking during pregnancy on newborn?

- A. Hypoglycemia
- B. Infantile spasms
- C. Low birth weight
- D. Neural tube defect

Answer: C

1. **Smoking during pregnancy** carries the risk of preterm birth. Smoking during pregnancy is associated with smaller, premature newborns, but not with tachypnea, specific birth defects, hypoglycemia, or macrosomia.

2. **The most common effect of smoking during pregnancy is a reduction in birth weight.**

341. A pregnant lady with a positive oral glucose tolerance test. Which of the following is the best action for this woman?

- A. Check Hb-A1C
- B. Do a random blood glucose
- C. Repeat the test
- D. Start insulin

Answer: D

Gestational diabetes is a condition in which a woman without diabetes develops high blood sugar levels during pregnancy. Gestational diabetes generally results in few symptoms; however, it does increase the risk of pre-eclampsia, depression, and requiring a Caesarean section. Babies born to mothers with poorly treated gestational diabetes are at increased risk of being too large, having low blood sugar after birth, and jaundice. If untreated, it can also result in a stillbirth. Prevention is by maintaining a healthy weight and exercising before pregnancy. Gestational diabetes is treated with a diabetic diet, exercise, and possibly insulin injections.

342. Intrauterine Device (IUD) is contraindicated in which of the following?

- A. Ectopic pregnancy
- B. Endometriosis
- C. Migraine headaches
- D. Pelvic Inflammatory Disease

Answer: D

Absolute contraindications for IUD use include the following:

1. Pregnancy
2. Significantly distorted uterine anatomy
3. Unexplained vaginal bleeding concerning for pregnancy or pelvic malignancy
4. Gestational trophoblastic disease with persistently elevated beta-human chorionic gonadotropin levels
5. Ongoing pelvic infection

IUD use is safe in women with the following conditions:

1. History of an ectopic pregnancy
2. History of pelvic surgery
3. Hypertension or other forms of heart disease
4. History of deep venous thrombosis
5. History of migraine headaches
6. Anemia
7. Diabetes
8. Endometriosis
9. Smoking

343. You diagnose a 21-year-old woman at 12 weeks gestation with gonorrhea cervicitis. Which of the following is the most appropriate treatment for her infection?

- A. Ceftriaxone
- B. Chloramphenicol
- C. Doxycycline
- D. Tetracycline

Answer: A

No notable adverse effects have been associated with the use of penicillins or cephalosporins. Tetracycline may cause fetal dental anomalies and inhibition of bone growth if administered during the second and third trimesters, and it is a potential teratogen to first-trimester fetuses. Administration of tetracyclines can also cause severe hepatic decompensation in the mother, especially during the third trimester. Chloramphenicol may cause the gray baby syndrome (symptoms of which include vomiting, impaired respiration, hypothermia, and, finally, cardiovascular collapse) in neonates who have received large doses of the drug. N Trimethoprim-sulfamethoxazole (Bactrim) should not be used in the third trimester because sulfa drugs can cause kernicterus.

344. A postmenopausal woman presents with pruritic white lesions on the vulva. Punch biopsy of a representative area is obtained and is consistent with lichen sclerosus. Which of the following is the most appropriate treatment for this patient?

- A. Intralesional injection of corticosteroids
- B. Skinning vulvectomy
- C. Topical corticosteroids
- D. Topical estrogen

Answer: C

Lichen sclerosis was formerly termed lichen sclerosis et atrophicus, but recent studies have concluded that atrophy does not exist. Patients with lichen sclerosis of the vulva tend to be older; they typically present with pruritus, and the lesions are usually white with crinkled skin and well-defined borders. The histologic appearance of lichen sclerosis includes loss of the rete pegs within the dermis, chronic inflammatory infiltrate below the dermis, the development of a homogenous subepithelial layer in the dermis, a decrease in the number of cellular layers, and a decrease in the number of melanocytes. Mechanical trauma produces bullous areas of lymphedema and lacunae, which are then filled with erythrocytes. Ulcerations and ecchymoses may be seen in these traumatized areas as well. Mitotic figures are rare in lichen sclerosis, and hyperkeratosis is not a feature. Lichen sclerosis is not a premalignant lesion; however, women with it have an increased risk of vulvar malignancy. Its importance lies in the fact that it must be distinguished from vulvar squamous cancer. First line therapy is ultrapotent corticosteroids such as clobetasol, halobetasol, or diflorasone. Topical estrogen is indicated if labial adhesions are present. Experience with intralesional corticosteroids is limited and is not recommended for first-line therapy. Surgical intervention is reserved for cases associated with malignancy or disease unresponsive to medical therapy.

345. A 22-year-old G1P0 has just undergone a spontaneous vaginal delivery. As the placenta is being delivered, a red fleshy mass is noted to be protruding out from behind the placenta. Which of the following is the best next step in management of this patient?

- A. Begin intravenous oxytocin infusion
- B. Call for immediate assistance from other medical personnel
- C. Continue to remove the placenta manually
- D. Have the anesthesiologist administer magnesium sulfate

Answer: B

This patient has a uterine inversion. Summon assistance immediately, including an anesthesiologist. Ensure that the patient has adequate IV access and that blood is available if needed. If attached, the placenta is not removed until the infusion systems are operational, fluids are being given, and anesthesia (preferably halothane) has been administered. To remove the placenta before this time increases hemorrhage. As soon as the uterus is restored to its normal configuration, the anesthetic agent used to provide relaxation is stopped and simultaneously oxytocin is started to contract the uterus.

346. In regard to vulvar cancer, which of the following is the principle in diagnosing it?

- A. Clinical, through history of HPV.
- B. Clinical, through history of PID
- C. Histopathological, through biopsy
- D. Radiological, through pelvic US.

Answer: C

Examination of the vulva is part of the gynecologic evaluation and should include a thorough inspection of the perineum, including areas around the clitoris and urethra, and palpation of the Bartholin's glands. The exam may reveal an ulceration, lump or mass in the vulvar region. Any suspicious lesions need to be sampled, or biopsied.

347. The most accurate diagnostic investigation for ectopic pregnancy ?

- A. Culdocentesis
- B. Endometrial biopsy
- C. Laparoscopy
- D. Pelvic U/S
- E. Serial B-HCG

Answer: C

Laparoscopy remains the criterion standard for diagnosis; however, its routine use on all patients suspected of ectopic pregnancy, However initial diagnosis of ectopic pregnancy is a clinical diagnosis made based upon serial serum human chorionic gonadotropin (hCG) testing and transvaginal ultrasound (TVUS)

348. A 30-year-old G5P3 has undergone a repeat cesarean delivery. She wants to breast-feed. Her past medical history is significant for hepatitis B infection, hypothyroidism, depression, and breast reduction. She is receiving intravenous antibiotics for endometritis. Which of the following would prevent her from breast-feeding?

- A. Maternal reduction mammoplasty with transplantation of the nipples
- B. Maternal treatment with ampicillin
- C. Maternal treatment with fluoxetine
- D. Maternal treatment with levothyroxine

Answer: A

There are very few contraindications to breast-feeding. Most medications taken by the mother enter into breast milk to some degree. Breast-feeding is inadvisable when the mother is being treated with antimetabolic drugs, tetracyclines, diagnostic or therapeutic radioactive substances, or lithium carbonate. Acute puerperal mastitis may be managed quite successfully while the mother continues to breast-feed. Reduction mammoplasty with autotransplantation of the nipple simply makes breast-feeding impossible. Ampicillin or levothyroxine can be safely used by breast-feeding mothers. A past history of hepatitis B is not a contraindication to breast-feeding. With some acute viral infections such as hepatitis B, there is the possibility of transmitting the virus in milk.

349. A 23-year-old G1 with a history of a flulike illness, fever, myalgias, and lymphadenopathy during her early third trimester delivers a growth-restricted infant with seizures, intracranial calcifications, hepatosplenomegaly, jaundice, and anemia. What is the most likely causative agent?

- A. Cytomegalovirus
- B. Hepatitis B

- C. Influenza A
- D. Toxoplasmosis gondii

Answer: D

T. gondii is transmitted by eating infected raw or undercooked meat and contact with infected cat feces. Maternal immunity appears to protect against fetal infection, and up to one-third of American women are immune prior to pregnancy. Acute infection in the mother is often subclinical, but symptoms can include fatigue, lymphadenopathy, and myalgias. Fetal infection is more common when disease is acquired later in pregnancy (60% in third trimester vs 10% in first trimester). Congenital disease consists of low birth weight, hepatosplenomegaly, jaundice, anemia, neurological disease with seizures, intracranial calcifications, and mental retardation. Influenza does not cause any fetal effects.

350. A 36-year-old morbidly obese woman presents to your office for evaluation of irregular, heavy menses occurring every 3 to 6 months. An office endometrial biopsy shows complex hyperplasia of the endometrium without atypia. The hyperplasia is most likely related to the excess formation in the patient's adipose tissue of which of the following hormones?

- A. Androstenedione
- B. Estradiol
- C. Estriol
- D. Estrone

Answer: D

In premenopausal adult women, most of the estrogen in the body is derived from ovarian secretion of estradiol, but a significant portion also comes from the peripheral conversion of androstenedione to estrone in adipose tissue. When there is an increase in fat cells, as in obese persons, estrogen levels—particularly estrone—will be higher provoking anovulation and endometrial hyperplasia.

351. A 33-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual

intercourse for over a year. Which of the following is the definitive test for diagnosing endometriosis?

- A. Laparoscopy
- B. Pap smear
- C. Quantitative hCG testing
- D. Ultrasound

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled “chocolate cyst”). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

352. A 37-year-old woman at 32 weeks gestation is brought to the emergency room with sudden onset of heavy vaginal bleeding. She has no pain or uterine contractions. Examination shows an active bright red bleeding from the cervix. Which of the following is least likely the risk factors for this disease?

- A. Advanced maternal age
- B. Cocaine use
- C. Grand multiparous
- D. Prior C-sections

Answer: B

Placenta Previa 1. Definition: A placenta that is situated in the lower uterine segment. 2. Risk factors: Prior C-sections, grand multiparous, advanced maternal age, multiple gestation, prior placenta previa. 3. Symptoms: Painless, third trimester, bright red bleeding that often ceases in 1–2 hours with or without uterine contractions. On Examination: 1. Fundal level and uterine external palpation are normal. 2. Pelvic examination is absolutely contraindicated (Fatal bleeding). Diagnosis: Transabdominal (Not transvaginal) ultrasound. (Do not perform a vaginal exam) Treatment: 1. Management of placenta previa depends on the severity of bleeding and the age of pregnancy. 2. Resuscitation is the best next step. 3. Bed rest and sexual abstinence. 4. Tocolytics can be used to delay delivery and reduce maternal bleeding risk in cases of a preterm fetus with immature lungs and mild maternal bleeding. 5. When delivery is indicated, perform by caesarean section. 6. Vaginal delivery can be performed with a low-lying placenta.

353. A 28-year-old married lady with 3 children is requesting a general checkup to make sure she is healthy. The examination is unremarkable. Which of the following screening tests is the most important that you request for her?

- A. CA-125
- B. DEXA scan
- C. Fasting blood glucose
- D. Mammogram
- E. Pap smear

Answer: E

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test).

<https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

354. A 35-year-old graduate student presents to the local clinic with fever, malaise, lymphadenopathy, and pharyngitis. His spleen is not enlarged and although there is a predominance of lymphocytes reported in his peripheral

smear, the heterophile antibody test is negative. What is the most likely etiology of this student's infection?

- A. Adenovirus
- B. Cytomegalovirus
- C. Epstein–Barr virus
- D. Parvovirus B19

Answer: B

While the majority of CMV (b) infections acquired in young adulthood are asymptomatic, some may develop heterophile-negative mononucleosis syndrome, described in the vignette. Generally, the lymphadenopathy and pharyngitis are less severe than that seen with infectious mononucleosis caused by EBV (c). Adult primary CMV infection may also manifest as hepatitis, but tests for HAV, HBV, and HCV would be negative. Adeno-virus (a), parvovirus B19 (d), and HCV (e) do not cause mononucleosis syndrome.

355. A 20-year-old unmarried female patient presents with polycystic ovary syndrome (PCOS). Her menses occur at irregular intervals. Which of the following drugs is most appropriate for her?

- A. Clomiphene citrate
- B. Glitazones
- C. Leuprolide
- D. Oral contraceptive pills
- E. Spironolactone

Answer: D

Medications for PCOS include oral contraceptives. The oral contraceptives increase sex hormone binding globulin production, which increases binding of free testosterone. This reduces the symptoms of hirsutism caused by high testosterone and regulates return to normal menstrual periods. It can be difficult to become pregnant with PCOS because it causes irregular ovulation. Medications to induce fertility when trying to conceive include the ovulation inducer clomiphene or pulsatile leuprolide. Spironolactone can be used for its antiandrogenic effects, and the topical cream eflornithine can be used to reduce facial hair.

356. A 19-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the treatment of choice for this patient?

- A. Azithromycin for the patient and her sexual partner.
- B. Fluconazole for the patient only.
- C. Oral metronidazole for the patient and her sexual partner.
- D. Oral metronidazole for the patient.

Answer: C

1. Trichomonas vaginitis is a sexually transmitted infection that classically presents with yellow-green, malodorous, thin, frothy, and occasionally purulent vaginal discharge. 2. It usually causes pruritus, dysuria, and dyspareunia, though it can be asymptomatic. 3. Wet mount microscopy would show highly motile pear-shaped organisms with 3-5 flagella. 4. Vaginal pH 5.0 – 6.0. 5. Metronidazole (500mg 2x for 7 days) is the treatment of choice and should be prescribed to both the patient and the partner.

357. A 22-year-old nulliparous woman at 15 weeks comes to the doctor with complaints of pain with urination, and she reports that she has been urinating much more frequently for two days. Urinalysis shows increased leukocyte esterase, elevated nitrites, 40 leukocytes/hpf, and bacteria. Which of the following is the most appropriate treatment for this patient?

- A. Cephalexin
- B. Ciprofloxacin
- C. Doxycycline
- D. Streptomycin

Answer: A

Urinary tract infections (UTIs) are common in pregnancy.

UTIs are associated with risks to both the fetus and the mother, including pyelonephritis, preterm birth, low birth weight, and increased perinatal mortality.

Pyelonephritis is the most common urinary tract complication in pregnant women, occurring in approximately 2% of all pregnancies.

In most cases of bacteriuria and urinary tract infection (UTI) in pregnancy, the prognosis is excellent.

Safe and Recommended

1. Amoxicillin
2. Amoxicillin-clavulanate
3. Nitrofurantoin
4. Cephalexin

Contraindicated

1. Fluoroquinolones e.g ciprofloxacin , levofloxacin
2. Tetracycline e.g Doxycycline
3. Trimethoprim-sulfamethoxazole e.g Bactrim

358. A 30-year-old male patient complains of fever and sore throat for several days. The patient presents to you today with additional complaints of hoarseness, difficulty breathing, and drooling. On examination, the patient is febrile and has inspiratory stridor. Which of the following is the best course of action?

- A. Admit to intensive care unit and obtain otolaryngology consultation.
- B. Begin outpatient treatment with ampicillin.
- C. Culture throat for β -hemolytic streptococci.
- D. Obtain Epstein-Barr serology.
- E. Schedule for chest x-ray.

Answer: A

This patient, with the development of hoarseness, breathing difficulty, and stridor, is likely to have acute epiglottitis. Because of the possibility of impending airway obstruction, the patient should be admitted to an intensive care unit for close monitoring. The diagnosis can be confirmed by indirect laryngoscopy or soft tissue x-rays of the neck, which may show an enlarged epiglottis. Otolaryngology consult should be obtained. The most likely organism causing this infection is *H influenzae*. Many of these organisms are β -lactamase producing and would be resistant to ampicillin. Streptococcal pharyngitis can cause severe pain on swallowing, but the infection does not descend to the hypopharynx and larynx. Lateral neck films would be more useful than a chest x-ray. Classic finding on lateral neck films would be the thumbprint sign. Infectious mononucleosis often causes exudative pharyngitis and cervical lymphadenopathy but not stridor.

359. A pregnant woman in her 32-nd week of gestation is given magnesium sulfate for preeclampsia. Which of the following is the earliest sign of magnesium intoxication?

- A. Flaccid paralysis
- B. Hypotension
- C. Loss of deep tendon reflexes
- D. Respiratory arrest
- E. Stupor

Answer: C

States of magnesium excess are characterized by generalized neuromuscular depression. Clinically, severe hypermagnesemia is rarely seen except in those patients with advanced renal failure treated with magnesium-containing antacids. Hypermagnesemia is produced intentionally, however, by obstetricians who use parenteral magnesium sulfate (MgSO_4) to treat preeclampsia. MgSO_4 is administered until depression of the deep tendon reflexes is observed, a deficit that occurs with modest hypermagnesemia (over 4 meq/L). Greater elevations of magnesium produce progressive weakness, which culminates in flaccid quadriplegia and in some cases respiratory arrest from paralysis of the chest bellows mechanism. Hypotension may occur because of the direct arteriolar relaxing effect of magnesium. Changes in mental status occur in the late stages of the syndrome and are characterized by somnolence that progresses to coma.

360. A 50-years-old woman comes with signs and symptoms of menopause. Which of the following is the best hormone to confirm her diagnose?

- A. GnRH and TRH
- B. LH and FSH
- C. Progesterone and estrogen
- D. Prolactin and oxytocin

Answer: B

Menopause, also known as the climacteric, is the time in most women's lives when menstrual periods stop permanently, and they are no longer able to bear children. Menopause typically occurs between 49 and 52 years of age. Medical professionals often define menopause as having occurred when a woman has not had any vaginal bleeding for a year. It may also be defined by a decrease in hormone production by the ovaries. The depletion of the ovarian reserve causes an increase in circulating follicle-stimulating hormone (FSH) and luteinizing hormone (LH) levels because there are fewer oocytes and follicles responding to these hormones and producing estrogen.

361. A 22-year-old G1 at 34 weeks is tested for tuberculosis because her father, with whom she lives, was recently diagnosed with tuberculosis. Her skin test is positive and her chest x-ray reveals a granuloma in the upper leti lobe. Which of the following is true concerning infants born to mothers with active tuberculosis?

- A. Bacille Calmette-Guérin (BCG) vaccination of the newborn infant without evidence of active disease is not appropriate.
- B. Future ability for tuberculin skin testing is lost after BCG administration to the newborn.
- C. Neonatal infection is most likely acquired by aspiration of infected amniotic fluid.
- D. The risk of active disease during the first year of life may approach 90% without prophylaxis.

Answer: B

The goal of management in the infant born to a mother with active tuberculosis is prevention of early neonatal infection. Congenital infection, acquired either by a hematogenous route or by aspiration of infected amniotic fluid, is rare. Most neonatal infections are acquired by postpartum maternal contact. The risk of active disease during the first year of life may approach 50% if prophylaxis is not instituted. BCG vaccination and daily isonicotinic acid hydrazide (isoniazid, INH) therapy are both acceptable means of therapy. BCG vaccination may be easier because it requires only one injection; however, the ability to perform future tuberculin skin testing is lost.

362. A 21-years-old woman complaints about nausea and vomiting, especially in the morning, and menses delay for 3 weeks. These symptoms appeared after the 2months of marriage. Which of the following is the most likely diagnosis?

- A. Food poisoning
- B. Gastritis
- C. Gastroduodenitis
- D. Pregnancy

Answer: D

The symptoms and discomforts of pregnancy are those presentations and conditions that result from pregnancy but do not significantly interfere with activities of daily living or pose a threat to the health of the mother or baby.

Common symptoms and discomforts of pregnancy include:

Tiredness.

Constipation

Pelvic girdle pain

Back pain

Braxton Hicks contractions. Occasional, irregular, and often painless contractions that occur several times per day.

Edema (swelling). Common complaint in advancing pregnancy. Caused by compression of the inferior vena cava and pelvic veins by the uterus leads to increased hydrostatic pressure in lower extremities.

Increased urinary frequency. A common complaint, caused by increased intravascular volume, elevated glomerular filtration rate, and compression of the bladder by the expanding uterus.

Urinary tract infection

Varicose veins. Common complaint caused by relaxation of the venous smooth muscle and increased intravascular pressure.

Haemorrhoids (piles). Swollen veins at or inside the anal area. Caused by impaired venous return, straining associated with constipation, or increased intra-abdominal pressure in later pregnancy.

Regurgitation, heartburn, and nausea.

Stretch marks

Breast tenderness is common during the first trimester, and is more common in women who are pregnant at a young age.

363. Which of the following is the gold standard for treatment of umbilical cord prolapse?

- A. Emergency cesarean section
- B. Handle the cord outside the vagina
- C. Manual replacement of the prolapsed cord above the presenting part
- D. Vaginal

Answer: A

Umbilical cord prolapse occurs when the umbilical cord comes out of the uterus with or before the presenting part of the fetus. It is a relatively rare condition and occurs in fewer than 1% of pregnancies. Cord prolapse is more common in women who have had rupture of their amniotic sac. Other risk factors include maternal or fetal factors that prevent the fetus from occupying a normal position in the maternal pelvis, such as abnormal fetal lie, too much amniotic fluid, or a premature or small fetus.

The gold standard for treatment of umbilical cord prolapse in the setting of a viable pregnancy typically involves immediate delivery by the quickest and safest route possible. This usually requires cesarean section, especially if the woman is in early labor. Occasionally, vaginal delivery will be attempted if clinical judgment determines that is a safer or quicker method.

Other interventions during management of cord prolapse are typically used to decrease the chance of complications while preparations for delivery are being made. These interventions are focused on reducing pressure on the cord to prevent fetal complications from cord compression. The following maneuvers are among those used in clinical practice:

manual elevation of the presenting fetal part
repositioning of the mother to be head down with feet elevated
filling of the bladder with a foley catheter, or tube through the urethra to elevate the presenting fetal part
use of tocolytics (medications to suppress labor) have been proposed, usually in addition to bladder filling rather than a standalone intervention

364. As you are about to step out of a newly delivered mother's room, she mentions that she wants to breast-feed her healthy infant, but that her obstetrician was concerned about one of the medicines she was taking. Which of the woman's medicines, listed below, is clearly contraindicated in breast-feeding?

- A. Amphetamines for her attention deficit disorder
- B. Carbamazepine for her seizure disorder
- C. Ibuprofen as needed for pain or fever

D. Labetalol for her chronic hypertension

Answer: A

Most medications are secreted to some extent in breast milk, and some lipid-soluble medications may be concentrated in breast milk. Although the list of contraindicated medications is short, caution should always be exercised when giving a medication to a breast-feeding woman. Medications that are clearly contraindicated include lithium, cyclosporin, antineoplastic agents, illicit drugs including cocaine and heroin, amphetamines, ergotamines, and bromocriptine (which suppresses lactation). Although some suggest that oral contraceptives may have a negative impact on milk production, the association has not been proven conclusively. In general, antibiotics are safe, with only a few exceptions (such as tetracycline). While sedatives and narcotic pain medications are probably safe, the infant must be observed carefully for sedation. All of the medications listed in the question are considered safe, except for amphetamines.

365. A 52-year-old man comes to the physician with fever for the last 3 days. Since returning from a family trip to Sudan two weeks ago, he has been lethargic with abdominal pain, constant nausea and headache. His temperature is 38.5 C, blood pressure is 120/60 mm Hg, pulse is 119/min, and respirations are 19/min.

Which of the following investigations will be most helpful in establishing the diagnosis?

- A. Clinically
- B. KOH Preparation
- C. PCR
- D. Peripheral blood smear

Answer: D

1. Malaria is a parasitic infection caused by plasmodium spp. (*P. vivax*, *P. falciparum*, *P. ovale*, *P. malariae*) transmitted by Anopheles mosquito.
3. Symptoms and signs include fever (which may be periodic), chills, sweating, hemolytic anemia, and splenomegaly.
4. Diagnosis is by seeing Plasmodium in a peripheral blood smear.
5. Treatment and prophylaxis depend on the species and drug sensitivity and include the fixed combination of atovaquone and proguanil, artemisinin derivatives, doxycycline, mefloquine, chloroquine, and quinine.
6. Patients infected with *P. vivax* and *P. ovale* also receive primaquine to prevent relapse

366. A 39-year-old, G7P0A3, is in her thirteenth week of pregnancy. She has lost three consecutive normally formed fetuses after 20 weeks gestation, and she has had three spontaneous second trimester abortions. Her mother took diethylstilbestrol (DES) while she was in utero. Which of the following is most likely the cause of her recurrent abortions?

- A. Age
- B. Asherman syndrome
- C. Cervical incompetence
- D. Diethylstilbestrol

Answer: C

Cervical incompetence (or cervical insufficiency) is a medical condition of pregnancy in which the cervix begins to dilate (widen) and efface (thin) before the pregnancy has reached term. Definitions of cervical incompetence vary, but one that is frequently used is the inability of the uterine cervix to retain a pregnancy in the absence of the signs and symptoms of clinical contractions, or labor, or both in the second trimester. Cervical incompetence may cause miscarriage or preterm birth during the second and third trimesters. Another sign of cervical incompetence is funneling at the internal orifice of the uterus, which is a dilation of the cervical canal at this location.

<https://www.uptodate.com/contents/miscarriage-beyond-the-basics>

367. -A pregnant lady in her first trimester did not have any vaccination for rubella. Which of the following is the best next step for this woman?

- A. Don't give the vaccine.
- B. Give MMR immediately
- C. Give MMR in the third trimester
- D. Give the MMR in the second trimester

Answer: A

Remember that MMR, varicella, and HPV vaccines are contraindicated during pregnancy. So if the patient is not immunized give MMR vaccine after delivery-The measles, mumps, rubella, and chickenpox (varicella) vaccines are particularly important for women of childbearing age who are susceptible to these infections and who may become pregnant because these vaccines are contraindicated during pregnancy, and infection occurring in non-immune pregnant women can adversely affect pregnancy outcome.Reference:Hacker and Moore's, page 10, 5th edition<https://www.uptodate.com/contents/vaccination-during-pregnancy-beyond-the-basics>

368. Which of the following is used for emergency contraception?

- A. Combined OCP
- B. Depot medroxyprogesterone acetate (DMPA)
- C. Levonorgestrel
- D. Progestin Only Pill

Answer: C

1. Emergency contraception (EC), are birth control measures that may be used after sexual intercourse to prevent pregnancy.
2. Usually, hormones (eg, ulipristal acetate, levonorgestrel) are used for emergency contraception (EC); they are taken as soon as possible within 120 h of unprotected intercourse.
3. Oral levonorgestrel (Plan B) is the most readily available emergency contraception; it works by delaying ovulation but is ineffective post-fertilization. Patients desiring emergency contraception should be provided oral levonorgestrel as soon as possible, as the efficacy decreases with time.
4. The probability of pregnancy is reduced by 85% after levonorgestrel EC, which has a pregnancy rate of 2 to 3%.

369. When you can diagnose the dichroic twins by ultrasound?

- A. 3rd trimester

- B. Early 2nd trimester
- C. First trimester
- D. Late 2nd trimester

Answer: C

Sonographic assessment of chorionicity is most accurate in the first trimester.

First trimester

Features supporting a DCDA pregnancy:

presence of two gestational sacs with a thick echogenic chorion surrounding each embryo

a thick inter-twin membrane

twin peak sign

two yolk sacs may be seen (this, however, does not differentiate a DCDA pregnancy from a monochorionic diamniotic (MCDA) pregnancy)

Second trimester

when there is no placental fusion, two separate placental sites may be seen

a finding of two different genders for each twin is a definitive feature for a dizygotic pregnancy which in turn will invariably mean a DCDA pregnancy

If the twins are of the same gender then it is extremely difficult if not impossible to determine if they are monozygotic or dizygotic on ultrasound.

370. A 31-year old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the most likely diagnosis?

- A. Fat necrosis of the breast
- B. Fibrocystic disease
- C. Inflammatory breast carcinoma
- D. Mastitis

Answer: D

Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly. Inflammatory breast carcinoma It is an uncommon form of breast cancer. It presents as erythematous and edematous plaque with a "peau d'orange" appearance overlying a breast mass, commonly with axillary lymphadenopathy. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Fat necrosis of the breast is associated with breast trauma or surgery (e.g. reduction mammoplasty). Fat necrosis can mimic breast cancer in its clinical and radiographic features as fixed mass, skin or nipple retraction, evidence of calcification on mammography and appears solid (hypoechoic mass) on ultrasonography. Breast malignancy has micro-calcification, while fat necrosis has coarse calcification. Excisional, core or fine needle biopsy is diagnostic and shows fat globules and foamy histocytes. No treatment is indicated, as it is self-limited condition.

371. Which of the following would be the best next step in a woman with postpartum hemorrhage if oxytocin did not help to stop bleeding?

- A. Activate massive transfusion protocol
- B. Hysterectomy
- C. Ligation of internal iliac artery
- D. Uterine massage

Answer: D

A detailed stepwise management protocol has been introduced by the California Maternity Quality Care Collaborative. It describes 4 stages of obstetrical hemorrhage after childbirth and its application reduces maternal mortality.

Stage 0: normal - treated with fundal massage and oxytocin.

Stage 1: more than normal bleeding - establish large-bore intravenous access, assemble personnel, increase oxytocin, consider use of methergine, perform fundal massage, prepare 2 units of packed red blood cells.

Stage 2: bleeding continues - check coagulation status, assemble response team, move to operating room, place intrauterine balloon, administer additional uterotonics (misoprostol, carboprost tromethamine), consider: uterine artery embolization, dilatation and curettage, and laparotomy with uterine compression stitches or hysterectomy.

Stage 3: bleeding continues - activate massive transfusion protocol, mobilize additional personnel, recheck laboratory tests, perform laparotomy, consider hysterectomy.

372. An intrauterine pregnancy of approximately 10 weeks gestation is confirmed in a 30-year-old G5P4 woman with an IUD in place. The patient expresses a strong desire for the pregnancy to be continued. On examination, the string of the IUD is noted to be protruding from the cervical os. Which of the following is the most appropriate course of action?

- A. Leave the IUD in place and continue prophylactic antibiotics throughout pregnancy.
- B. Leave the IUD in place without any other treatment.
- C. Remove the IUD immediately.
- D. Terminate the pregnancy because of the high risk of infection.

Answer: C

Although there is an increased risk of spontaneous abortion, and a small risk of infection, an intrauterine pregnancy can occur and continue successfully to term with an IUD in place. However, if the patient wishes to keep the pregnancy and if the string is visible, the IUD should be removed in an attempt to reduce the risk of infection, abortion, or both. Although the incidence of ectopic pregnancies with an IUD was at one time thought to be increased, it is now recognized that in fact the overall incidence is unchanged. The apparent increase is the result of the dramatic decrease in intrauterine implantation without affecting ectopic implantation. Thus, while the overall probability of pregnancy is dramatically decreased, when a pregnancy does occur with an IUD in place, there is a higher probability that it will be an ectopic one. With this in mind, in the absence of signs and symptoms suggestive of an ectopic pregnancy, especially after ultrasound documentation of an intrauterine pregnancy, laparoscopy is not indicated. The incidence of heterotopic pregnancy, in which intrauterine and extrauterine implantation occur, is no higher than approximately 1 in 2500 pregnancies.

373. A 23 year-old man who is known to be HIV positive presents with a history of mild fever, cough and difficulty breathing. A diagnosis of pneumonia is made. A transbronchial biopsy was ordered as the patient did not respond to antibiotic treatment (see report).

Alveolar biopsy

Soap bubble like intra-alveolar exudates and small cyst like structures identified by silver stains

What was the most likely cause?

- A. *Aspergillus fumigatus*
- B. *Chlamydia trachomatis*
- C. *Cryptococcus neoformans*
- D. *Pneumocystis carinii*

Answer: D

1. **Pneumocystis jirovecii** is a common cause of pneumonia in immunosuppressed patients, especially in those infected with HIV and in those receiving systemic corticosteroids.
2. Symptoms include fever, dyspnea, and dry cough.
3. Diagnosis requires demonstration of the organism in an induced sputum specimen or bronchoscopic sample.
4. Diagnosis is made histologically by finding the organisms in cytologic (broncho alveolar lavage) or biopsy (transbronchial or open lung biopsy) material from lung. (shows soap bubble pattern" cotton candy exudate", and silver staining shows the organism which is comma shaped)
5. Treatment is with antibiotics, usually trimethoprim/sulfamethoxazole or dapsone/trimethoprim, clindamycin/primaquine, atovaquone, or pentamidine.
6. Patients with $\text{PaO}_2 < 70$ mm Hg receive systemic corticosteroids.
7. Prognosis is generally good with timely treatment.

374. Which of the following is the most likely position of rupture of hymen due to masturbation?

- A. 12 o'clock
- B. 3 o'clock
- C. 6 o'clock
- D. 9 o'clock

Answer: A

Anterolateral Tear in case of masturbation between 11' & 1'
Posterolateral Tear in case of sexual intercourse 5' to 7'

375. You see a healthy 30-year-old multiparous patient for preconception counseling. She is extremely worried about her risk of having a baby with a neural tube defect. Five years ago, she delivered a baby with anencephaly who died shortly after birth. What is the most appropriate counseling for this woman regarding future pregnancies?

- A. Prior to becoming pregnant again she should begin folic acid supplementation.
- B. She has a 50% risk of having an affected child in the future because anencephaly is an autosomal dominant trait.

- C. She has a decreased risk of having another baby with anencephaly because she is under 30 years of age.
- D. When she becomes pregnant, she should undergo diagnostic testing for fetal neural tube defects with

Answer: A

The incidence of neural tube defects in the general population is approximately 1.4 to 2.0/1000. It is a multifactorial defect and is not influenced by maternal age. Women who have a previously affected child have a neural tube defect recurrence risk of about 3% to 4%. This patient is at increased risk of having another child with a neural tube defect and, therefore, should be offered prenatal diagnosis with an amniocentesis and targeted ultrasound. A CVS will determine a fetus' chromosomal makeup but will give no information regarding AFP levels or risk for a neural tube defect. Hyperthermia at the time of neural tube formation in the embryo, as can occur with maternal fever or sauna baths, can increase the relative risk of a neural tube defect up to sixfold.

376. A 38-year-old G4P3 at 33 weeks gestation is noted to have a fundal height of 29 cm on routine obstetrical visit. An ultrasound is performed by the maternal-fetal medicine specialist. The estimated fetal weight is determined to be in the fifth percentile for the estimated gestational age. The biparietal diameter and abdominal circumference are concordant in size. Which of the following is associated with symmetric growth restriction?

- A. Chromosome abnormalities
- B. Hypertension
- C. Nutritional deficiencies
- D. Uteroplacental insufficiency

Answer: A

Intrauterine growth restriction (IUGR) is diagnosed when the estimated weight of the fetus falls below the tenth percentile for a given age. By the use of ultrasonography, IUGR can be classified as either symmetric or asymmetric. In asymmetric IUGR, the abdominal circumference is low, but the biparietal diameter may be at or near normal. In cases of symmetric IUGR, all fetal structures (including both head and body size) are proportionately diminished in size. Fetal infections, chromosome abnormalities, and congenital anomalies usually result in symmetric IUGR. Asymmetric IUGR is seen in cases where fetal access to nutrients is compromised, such as with severe maternal nutritional deficiencies or hypertension.

377. Which of the following medications is used to induce ovulation?

- A. Clomiphene citrate
- B. Combined hormonal contraceptives
- C. Eflornithine
- D. Spironolactone

Answer: A

1. Clomiphene citrate is used to induce ovulation in selected populations of anovulatory women, and in women with ovulatory infertility to increase follicular number and fertility.
2. **First-line treatment** for ovulation induction when fertility is desired is clomiphene citrate.
3. Metformin is indicated in polycystic ovarian syndrome patients with impaired glucose tolerance. It helps in preventing type 2 diabetes mellitus and correcting obesity, hirsutism, menstrual irregularity, and infertility.

378. Which of the following is the best period of time after which there is possible infertility if a couple has a regular unprotected sexual intercourse?

- A. 12 months
- B. 3 months
- C. 6 months
- D. 9 months

Answer: A

Infertility is “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (and there is no other reason, such as breastfeeding or postpartum amenorrhoea). Primary infertility is infertility in a couple who have never had a child. Secondary infertility is failure to conceive following a previous pregnancy. Infertility may be caused by infection in the man or woman, but often there is no obvious underlying cause.

379. A young woman came to Primary health care for pregnancy counseling. She had chickenpox when she was a child. Which of the following is the best next step for her?

- A. Give MMR vaccine
- B. Give Varivax vaccine
- C. Give Zostavax vaccine
- D. Varicella immunoglobulin.

Answer: A

Remember that MMR, varicella, and HPV vaccines are contraindicated during pregnancy. So if the patient is not immunized give MMR vaccine before the pregnancy or after delivery-The measles, mumps, rubella, and chickenpox (varicella) vaccines are particularly important for women of childbearing age who are susceptible to these infections and who may become pregnant because these vaccines are contraindicated during pregnancy, and infection occurring in non-immune pregnant women can adversely affect pregnancy outcome.

380. Which of the following is an absolute contraindication to external cephalic version?

- A. Breech presentation
- B. Oligohydramnios
- C. Ruptured membranes
- D. Scarred uterus

Answer: C

There are two types of contraindications :

Relative contraindication means that caution should be used when two drugs or procedures are used together. (It is acceptable to do so if the benefits outweigh the risk.)

Absolute contraindication it means that event or substance could cause a life-threatening situation thus it should be avoided.

External cephalic version is a procedure in which the fetus is rotated from the breech to the cephalic presentation by manipulation through the mother's abdomen.

ECV is indicated if breech presentation is persistent after 37 weeks. If ECV fails, then do cesarean delivery.

Absolute Contraindications

1. If caesarean section is indicated, e.g. placenta previa, previous Classical Caesarean section.
2. Abnormal cardiotocography; fetal heart rate abnormalities
3. Ruptured membranes
4. Contracted pelvis
5. Fetal death
6. Placental abruption

Relative contraindication

1. Small-for-gestational-age fetus with abnormal Doppler parameters; Fetal hypoxia
2. Pre-eclampsia with proteinuria; or Antepartum haemorrhage in the last week
3. Major fetal anomalies; Unstable lie; Multiple pregnancy
4. A restrictive nuchal cord, Hyper-extended head
5. Major uterine anomaly ; Scarred uterus
6. Oligohydramnios or hydramnios

381. A 25-year-old healthy primigravida presented to the hospital in labor pain. She had normal vaginal delivery and gave birth to a baby with a weight of 2.5 kg. Which of the following is the most important risk factor underlying this birth weight?

- A. Gestational diabetes
- B. High birth order
- C. Lack of folic acid
- D. Smoking
- E. Stress during pregnancy

Answer: D

Smoking doubles the risk of delivering a low birth weight baby and increases the risk of delivery of a preterm birth. The main reason is that smoking delivers the harmful chemicals tar, nicotine, and carbon monoxide to the fetus. These substances reduce the baby's oxygen supply, slowing its growth and development. The more cigarettes a woman smokes, the more likely she is to have an underweight baby. A mother can reduce her baby's risk of being born underweight by quitting smoking at any point in the pregnancy, according to the American Congress of Obstetricians and Gynecologists (ACOG). The main reason is that smoking delivers the harmful chemicals tar, nicotine, and carbon monoxide to the fetus. These substances reduce the baby's oxygen supply, slowing its growth and development. The more cigarettes a woman smokes, the more likely she is to have an underweight baby. The good news: A mother can reduce her baby's risk of being born underweight by quitting smoking at any point in the pregnancy, according to the American Congress of Obstetricians and Gynecologists (ACOG).

382. During preconception counseling, a woman has a question for you regarding immunizations. Correct advice for this patient includes which of the following?

- A. Hepatitis B vaccine crosses the placenta and causes neonatal jaundice.
- B. Inactivated vaccines are hazardous to the fetus.
- C. Inactivated vaccines are hazardous to the mother.
- D. The polio virus has the ability to spread from a vaccinated individual to susceptible persons in the immediate environment.

Answer: D

Inactivated or formalin-killed vaccines such as those for influenza, typhoid fever, tetanus, pertussis, diphtheria toxoid, rabies, poliomyelitis, cholera, plague, and Rocky Mountain spotted fever are probably not hazardous for either the mother or the fetus. Among the live viral vaccines, such as those for measles, mumps, and poliomyelitis, only the rubella vaccine theoretically may retain its teratogenic properties. There is a 5% to 10% risk of fetal infection when the vaccine is administered during the first trimester. However, no cases of congenital rubella syndrome have been reported in this group of patients. Of the commonly administered attenuated live viral vaccines, only the polio virus has the ability to spread from a vaccine to susceptible persons in the immediate environment. Therefore, the risk of infection for the pregnant mother who has been exposed to children who have recently been vaccinated for measles, mumps, and rubella is probably minimal.

383. A woman had a history of treated condylomata acuminata 6 months ago. On this visit, the investigation shows no infection. Which of the following is the best screening method for this woman?

- A. No need screening
- B. Repeat annually
- C. Repeat every 3 years
- D. Repeat every 5 years

Answer: B

-Patients who complete therapy for condylomata acuminata should undergo clinical examination 3 months and 6 months after treatment. Most patients who develop the recurrent or persistent disease are diagnosed within 6 months of therapy. If the patient appears disease-free at the 6-month visit, yearly visits are recommended. For anal and rectal lesions in the context of HIV infection, frequent follow-up is essential. Toronto notes

2017, GY44. References: <http://emedicine.medscape.com/article/219110-treatment#d14>

384. During the routine examination of the umbilical cord and placenta after a spontaneous vaginal delivery, you notice that the baby had only one umbilical artery. Which of the following is true regarding the finding of a

single umbilical artery?

- A. It is a rare finding in singleton pregnancies and is therefore not significant.
- B. It is a very common finding and is insignificant.
- C. It is an indicator of an increased incidence of congenital anomalies of the fetus.
- D. It is equally common in newborns of diabetic and non-diabetic mothers.

Answer: C

The absence of one umbilical artery occurs in 0.7% to 0.8% of umbilical cords of singletons, in 2.5% of all aborted fetuses, and in approximately 5% of at least one twin. The incidence of a single artery is significantly increased in newborns of diabetic mothers, and it occurs in white infants twice as often as in newborns of black women. The incidence of major fetal malformations when only one artery is identified has been reported to be as high as 18%, and there is an increased incidence of overall fetal mortality. The finding is an indication to offer amniocentesis, cordocentesis, or chorionic villus sampling to study fetal chromosomes, although there is debate about whether this should be done when there is only a truly isolated finding of single umbilical artery.

385. A woman at 15 weeks gestation comes to the doctor with sudden onset of abdominal pain and vaginal bleeding. She denies passing anything beyond a small amount of blood. A pelvic examination demonstrates a closed cervix. An ultrasound has performed the fetus is in the uterus and is normal for his gestational age. Which of the following best describes the most likely diagnosis?

- A. Ectopic pregnancy
- B. Incomplete abortion
- C. Inevitable abortion
- D. Threatened abortion

Answer: D

At less than 20 weeks gestation with minimal vaginal bleeding and a closed cervix in the setting of a normal fetal ultrasound is consistent with a threatened abortion. A missed abortion consists of an abnormal ultrasound suggesting fetal demise in the absence of vaginal bleeding or cervical dilation. An inevitable abortion presents with vaginal bleeding and cervical dilation, but no loss of products of conception. An abnormal ultrasound is also seen. An incomplete abortion presents with vaginal bleeding, cervical dilation, and loss of some but not all products of conception. An abnormal ultrasound is also expected. A completed abortion presents with vaginal bleeding, cervical dilation, and total loss of products of conception. An abnormal ultrasound is also seen.

386. Which of the following is true regarding lab tests during pregnancy?

- A. Decreased alkaline phosphatase
- B. Decreased lactic dehydrogenase
- C. Increased hemoglobin
- D. Increased white blood cell count

Answer: D

Many laboratory values are affected during pregnancy:

1. Hemoglobin/hematocrit: decreased
2. White blood cell count: increased
3. Fibrinogen level: increased
4. Erythrocyte sedimentation rate: increased
5. Albumin level: decreased
6. Fasting blood glucose: decreased
7. Lactic dehydrogenase: increased
8. Creatinine phosphokinase: increased
9. Alkaline phosphatase: increased
10. Calcium (total): decreased
11. Cortisol: increased
12. Prolactin: increased
13. Thyroxine total: increased

387. Which of the following is not a normal physiological change in pregnancy?

- A. Decreasing plasma pH
- B. GFR increases 30 to 50%
- C. O₂ consumption increases
- D. WBC count increases slightly

Answer: A

Cardiac output (CO) increases 30 to 50%, beginning by 6 wk gestation and peaking between 16 and 28 wk (usually at about 24 wk). It remains near peak levels until after 30 wk. Total blood volume increases proportionally with CO, but the increase in plasma volume is greater (close to 50%, usually by about 1600 mL for a total of 5200 mL) than that in RBC mass (about 25%); thus, Hb is lowered by dilution, from about 13.3 to 12.1 g/dL. This dilutional anemia decreases blood viscosity. With twins, total maternal blood volume increases more (closer to 60%). WBC count increases slightly to 9,000 to 12,000/ μ L. Marked leukocytosis ($\geq 20,000/\mu$ L) occurs during labor and the first few days postpartum. Changes in renal function roughly parallel those in cardiac function. GFR increases 30 to 50%, peaks between 16 and 24 wk gestation, and remains at that level until nearly term, when it may decrease slightly because uterine pressure on the vena cava often causes venous stasis in the lower extremities. Renal plasma flow increases in proportion to GFR. As a result, BUN decreases, usually to < 10 mg/dL (< 3.6 mmol urea/L), and creatinine levels decrease proportionally to 0.5 to 0.7 mg/dL (44 to 62 μ mol/L). Lung function changes partly because progesterone increases and partly because the enlarging uterus interferes with lung expansion. Progesterone signals the brain to lower CO₂ levels. To lower CO₂ levels, tidal and minute volume and respiratory rate increase, thus increasing plasma pH. O₂ consumption increases by about 20% to meet the increased metabolic needs of the fetus, placenta, and several maternal organs. Inspiratory and expiratory reserve, residual volume and capacity, and plasma Pco₂ decrease. As pregnancy progresses, pressure from the enlarging uterus on the rectum and lower portion of the colon may cause constipation. GI motility decreases because elevated progesterone levels relax smooth muscle. Heartburn and belching are common, possibly resulting from delayed gastric emptying and gastroesophageal reflux due to relaxation of the lower esophageal sphincter and diaphragmatic hiatus. HCl production decreases. Increased levels of estrogens, progesterone, and MSH contribute to pigmentary changes, although exact pathogenesis is unknown. These changes include Melasma (mask of pregnancy), which is a blotchy, brownish pigment over the forehead and malar eminences Darkening of the mammary areolae, axilla, and genitals Linea nigra, a dark line that appears down the midabdomen Melasma due to pregnancy usually regresses within a year. Incidence of spider angiomas, usually only above the waist, and of thin-walled, dilated capillaries, especially in the lower legs, increases.

388. On routine abdominal sonography for evaluation of a pregnant lady, cholelithiasis was discovered. Which of the following is the best line of management?

- A. Dissolution with bile acids therapy
- B. Endoscopic retrograde cholangiopancreatography
- C. No treatment is needed
- D. Papillotomy
- E. Surgical cholecystectomy

Answer: C

Gallstones are more common during pregnancy due to decreased gallbladder motility and increased cholesterol saturation of bile. In pregnant women with biliary colic or asymptomatic gallstones, supportive care will lead to resolution of symptoms in most cases, but the symptoms frequently recur later in pregnancy.

389. A pregnant lady presented with RLQ pain. On examination there was tenderness. Which of the following statements concerning appendicitis in pregnancy is true?

- A. Surgery is not necessary if the diagnosis is appendicitis
- B. The incidence of appendicitis in pregnancy is higher
- C. There is no increase in premature birth
- D. Upward displacement of the appendix

Answer: D

The incidence of appendicitis in pregnancy is 1 in 2000, the same as that in the nonpregnant population. The diagnosis is very difficult in pregnancy because leukocytosis, nausea, and vomiting are common in pregnancy and the upward displacement of the appendix by the uterus may cause appendicitis to simulate cholecystitis, pyelonephritis, gastritis, or degenerating myomas. Surgery is necessary even if the diagnosis is not certain. Delays in surgery due to difficulty in diagnosis as the appendix moves up are probably the cause of increasing maternal mortality with increasing gestational age. Premature birth and abortion account for a rate of fetal loss close to 15%.

390. A 31-year-old pregnant woman comes to the clinic at 30 weeks gestation complaining of headaches. The patient's vitals are notable for a blood pressure of 162/95 mmHg and urine dipstick demonstrates 2+ protein. Which one of the following would be the best treatment for this pregnant woman?

- A. Dexamethasone
- B. Labetalol
- C. Magnesium sulphate
- D. Methyldopa

Answer: C

Magnesium sulfate is the number one choice in a pregnant woman with preeclampsia. It prevents seizures and progressing of disease from preeclampsia to eclampsia.

391. A pregnant woman at 35 weeks of pregnancy comes to the office because she doesn't feel any fetal movements. Which of the following is the best next step?

- A. Biophysical profile
- B. Modified Biophysical profile
- C. Nonstress test
- D. Stress test

Answer: C

Decreased fetal movements can indicate deterioration in the baby's condition, for example, because of chronic placental insufficiency. Clinical observations indicate that mothers commonly perceive an absence or reduction in the baby's movements for some days before a baby's death. For this reason, fetal movement monitoring is advised by caregivers and is used spontaneously by mothers to assess the baby's well-being. Women's perception of decreased fetal movement is decreased with cigarette smoking, maternal obesity and if the placenta is at the front of the womb. Management strategies in response to perceived decreased fetal movements include early delivery, expectant management with close surveillance of the baby, cardiotocography (visual or analysed by computer to follow the baby's heart beat with uterine activity), ultrasound examination including Doppler ultrasound, and fetal arousal tests (either cardiotocographic or clinical observation where electronic fetal assessment methods are not available) to assess the baby's well-being. Evidence on the effectiveness of monitoring fetal movements and the subsequent management strategies in improving outcomes is limited.

392. A mother brings in her 16-year-old daughter for an evaluation of chronic abdominal pain. You have seen the girl many times before for various vague complaints over the past year. She has regular cycles that last 4 days with medium to light flow. She denies dysmenorrhea, gastrointestinal symptoms, or feeling depressed. She denies any sexual activity. The mother states that lately she has been doing poorly in school. She denies drug or alcohol use. Her mother thinks it may be related to recent changes at home since the mother's boyfriend moved in. Your examination and laboratory tests are normal. A previous workup by a gastroenterologist was also negative. Which of the following is the best next step in the management of this patient's symptoms?

- A. Initiate biofeedback therapy for chronic pain.
- B. Order immediate psychiatric evaluation.
- C. Prescribe antidepressant.
- D. Question the patient about possible sexual abuse.

Answer: D

Children who have been abused usually exhibit guilt, anger, behavioral problems, unexplained physical symptoms, poor school performance, and sleep disturbances. Physicians who evaluate patients with vague chronic pain syndromes that show no evidence of physical etiology should investigate sexual abuse as a possible contributor. Counseling should be offered as part of the treatment if abuse is encountered.

393. A pregnant lady in her first trimester did not have any vaccination for varicella. Which of the following is the best next step for this woman?

- A. Don't give the vaccine
- B. Give Varivax immediately
- C. Give Varizella IgG immediately
- D. Give Zostavax immediately

Answer: A

Remember that MMR, varicella, and HPV vaccines are contraindicated during pregnancy. So if the Pt is not immunized give MMR vaccine after delivery-The measles, mumps, rubella, and chickenpox (varicella) vaccines are particularly important for women of childbearing age who are susceptible to these infections and who may become pregnant because these vaccines are contraindicated during pregnancy, and infection occurring in non-immune pregnant women can adversely affect pregnancy outcome. Reference: Hacker and Moore's, page 10, 5th edition <https://www.uptodate.com/contents/vaccination-during-pregnancy-beyond-the-basics>

394. A 27-year-old female gives birth to a 8 lb, 8 oz boy but upon delivering the placenta starts to bleed heavily. The obstetrician estimates the blood loss at 2000 ml (normal <500 ml). She recovers well after IV saline infusion and 2 units of packed red blood cells. After one week, she notices that her milk never "let down" and she is unable to breastfeed her child. One year later, she has still not had a menses, and she complains of fatigue, cold intolerance, weight gain despite dieting and hair loss. Which of the following is the most likely cause of these symptoms?

- A. Addison's disease
- B. Cushing's disease
- C. Hashimoto's thyroiditis

- D. Pituitary adenoma
- E. Sheehan's syndrome

Answer: E

Sheehan's syndrome, also known as postpartum pituitary gland necrosis, is hypopituitarism caused by ischemic necrosis due to blood loss and hypovolemic shock during and after childbirth. Most common initial symptoms of Sheehan's syndrome are agalactorrhea (absence of lactation) and difficulties with lactation. Many women also report amenorrhea or oligomenorrhea after delivery. Also, symptoms include secondary hypothyroidism with tiredness, intolerance to cold, constipation, weight gain, hair loss and slowed thinking, as well as a slowed heart rate and low blood pressure. Another possible symptom is secondary adrenal insufficiency, which, in the rather chronic case is similar to Addison's disease with symptoms including fatigue, weight loss, hypoglycemia (low blood sugar levels), anemia and hyponatremia (low sodium levels).

395. A 17-year-old girl comes after one day of unprotected intercourse with her boyfriend. Now she is afraid to be pregnant and asks for advice. What is the best next step?

- A. Advice her to use condoms during the intercourse
- B. Insert her an intrauterine device
- C. Prescribe her mifepristone
- D. Reassurance

Answer: C

This girl afraid to be pregnant and had an unprotected intercourse. So the best next step would be an emergency contraception with mifepristone. Advice her to use condoms during the intercourse could be the best next step after prescription of emergency contraceptives. Reassurance is inappropriate next step because the girl could be pregnant in the future. There is no need to place an intrauterine device in this girl.

396. A woman comes to the doctor with a history of amenorrhea and galactorrhea of 6 months duration. Pregnancy testing in the office is negative. Which of the following is the most likely diagnosis?

- A. Craniopharyngioma

- B. Pituitary apoplexy
- C. Prolactinoma
- D. Tic douloureux

Answer: C

1. Prolactinomas produce amenorrhea and galactorrhea in young women.
2. Prolactinoma is the most common pituitary tumor. It presents differently in men and women.
3. Men: presents with impotence, decreased libido, and occasionally gynecomastia.
4. Men are more likely to have the signs of mass effect of a tumor, such as headache and visual disturbance.
5. Women: amenorrhea and galactorrhea in the absence of pregnancy has women presenting early.
6. The most accurate diagnostic test is an MRI of the brain.
7. Diagnostic workup includes ruling out pregnancy (pregnancy test), ruling out hypothyroidism,
8. Best initial therapy: Dopamine agonist agents, such as bromocriptine or cabergoline.
9. Most prolactinomas respond to dopamine agonists.

397. Which of the following is a correct definition of recurrence abortion?

- A. 2 documented consecutive and more
- B. 3 documented consecutive and more
- C. 4 documented consecutive and more
- D. 5 documented consecutive and more

Answer: B

Recurrent miscarriage, habitual abortion, or recurrent pregnancy loss (RPL) is three or more consecutive pregnancy losses.

398. At least 15 species of Mycoplasma are of human origin, and five are of primary importance. Which of the following organisms normally inhabits the female genital tract and is strongly associated with salpingitis and ovarian abscesses?

- A. Mycoplasma fermentans
- B. Mycoplasma hominis
- C. Mycoplasma orale

- D. *Mycoplasma pneumoniae*
- E. *Ureaplasma urealyticum*

Answer: B

Members of the mycoplasma group that are pathogenic for humans include *M. pneumoniae* and *U. urealyticum*. *Mycoplasma pneumoniae* is best known as the causative agent of PAP, which may be confused clinically with influenza or legionellosis. It also is associated with arthritis, pericarditis, aseptic meningitis, and the Guillain–Barré syndrome. *M. pneumoniae* can be cultivated on special media and identified by immunofluorescence staining and “fried egg” colonies on agar. *Ureaplasma urealyticum* (once called tiny, or T. strain) has been implicated in cases of NGU. As the name implies, this organism is able to split urea, a fact of diagnostic significance. *Ureaplasma urealyticum* is part of the normal flora of the genitourinary tract, particularly in women. Both *M. orale* and *M. salivarium* are inhabitants of the normal human oral cavity. These species are commensals and do not play a role in disease. The only other species of *Mycoplasma* associated with human disease is *M. hominis*. A normal inhabitant of the genital tract of women, this organism has been demonstrated to produce an acute respiratory illness that is associated with sore throat and tonsillar exudate, but not with fever. *M. hominis* can cause disease outside the urinary tract in immunosuppressed patients or immunocompetent patients after trauma of the genitourinary tract. Other opportunistic infections known to be caused by *M. hominis* include wound infections, osteomyelitis, brain abscess, pneumonia, and peritonitis. It has been associated with neonatal pneumonia and sepsis. *Mycoplasma fermentans* is an animal isolate.

399. What is the best place to take a cervical sample for Pap smear?

- A. Endocervix Cancer
- B. Exocervix
- C. Transformation
- D. Vaginal vault

Answer: C

The transformation zone is the site of origin for most cervical neoplasia and should be the focus of cytology specimen collection.

References: 1. <http://www.cytopathology.org/specimen-collection-adequacy-requisition/> <https://books.google.com.sa/books?id=0fIWgd3OJLEC&pg=PA11&lpg=PA11&dq=-#v=onepage&q&f=false>
2. Gynaecology by Ten Teachers, 19th Edition
3. Hacker & Moores Essentials of Obstetrics and Gynecology 5th

400. A 35-year-old married woman complained of fishy watery vaginal discharge. During the physical examination, there was found the punctate and papilliform appearance of the cervix. Which of the following is the most likely could be seen on microscopy?

- A. Flagellated protozoan
- B. Intracellular bacteria
- C. Pseudohyphae
- D. Virus

Answer: A

Trichomonas vaginalis is an anaerobic, flagellated protozoan parasite and the causative agent of trichomoniasis. It is the most common pathogenic protozoan infection of humans in industrialized countries. Infection rates among men and women are similar to women being symptomatic, while infections in men are usually asymptomatic. Transmission usually occurs via direct, skin-to-skin contact with an infected individual, most often through vaginal intercourse. The WHO has estimated that 160 million cases of infection are acquired annually worldwide. The estimates for North America alone are between 5 and 8 million new infections each year, with an estimated rate of asymptomatic cases as high as 50%. Usually, treatment consists of metronidazole and tinidazole.

401. After an initial pregnancy resulted in a spontaneous loss in the first trimester, your patient is concerned about the possibility of this recurring. Which of the following is the most appropriate answer regarding the chance of recurrence?

- A. It depends on the genetic makeup of the prior abortus.

- B. It has increased most likely to greater than 50%.
- C. It has increased to approximately 50%.
- D. It is no different than it was prior to the miscarriage.

Answer: D

An initial spontaneous abortion, irrespective of the karyotype or sex of the child, does not change the risk of recurrence in a future pregnancy. The rate is commonly quoted as 15% of all known pregnancies.

402. A 68-year-old Caucasian woman comes in to your office for advice regarding her risk factors for developing osteoporosis. She is 5 ft 1 in tall and weighs 105 lb. She stopped having periods at age 42. She is healthy and walks on a treadmill daily. She does not take any medications. She has never taken hormone replacement for menopause. Her mother died at age 71 after she suffered a spontaneous hip fracture. Which of the following will have the least effect on this patient's risk for developing osteoporosis?

- A. Her family history
- B. Her level of physical activity
- C. Her race
- D. Her weight

Answer: D

A major menopausal health issue is osteoporosis, which can result in fractures of the vertebral bodies, humerus, upper femur, forearm, or ribs. Patients with vertebral fractures experience back pain, gastrointestinal motility disorders, restrictive pulmonary symptoms, and loss of mobility. There may be a gradual decrease in height as well. Although all races experience osteoporosis, white and Asian women lose bone earlier and at a more rapid rate than black women. Thin women and those who smoke are at increased risk for developing osteoporosis. Physical activity increases the mineral content of bone in postmenopausal women.

403. A breastfeeding mother with hepatitis C virus treated by interferon more than one year. Which of the following is the absolute contraindication for breastfeeding?

- A. Active herpes lesion on the breast
- B. Hepatitis C virus

- C. Women who have cesarean deliveries
- D. Women, who received live vaccinations

Answer: A

Here's the list of absolute contraindications to Breast Feeding:• Infants with galactosemia. • Mothers who use illegal drugs. • Mothers infected with HIV, human T-cell lymphotropic virus type I or type II, or who have an active herpes lesion on the breast. • Mothers taking any of the following medications: radioactive isotopes, cancer chemotherapy agents, such as antimetabolites, and thyrotoxic agents. • Breastfeeding mothers should avoid alcohol. An occasional drink is acceptable, but breastfeeding should be avoided for 2 hours after the drink. Mothers with untreated varicella should not feed from the breast, but in most cases pumped milk can be fed to the infant. Commonly Mistaken as contraindication are the following: Women who have cesarean deliveries: Women received vaccinations or live with vaccinated children: semirecumbent position on the side or sitting up. live vaccines administered to a lactating woman or other family members affect the safety Consult product prescribing information and Most medications can be taken while breastfeeding. Neither inactivated nor of breastfeeding for the mother or infant. the LactMed Database about specific drugs: Women who take medications: bin/sis/htmlgen?LACT. Women who had breast surgery: Women who have hepatitis A: Women who have hepatitis B: Women who have hepatitis C: Women who have pierced nipples: the risk of infant choking. www.toxnet.nlm.nih.gov/cgi-milk supply milk supply breastfeed frequently to maintain surgical wound is painful, the other breast can be used but monitor infant growth. If the because could be insufficient. globulin, and then vaccinate at 1 year of age. Initiate breastfeeding after infant receives immune serum immune globulin and first dose of the 3-dose Initiate breastfeeding after infant receives hepatitis B hepatitis B vaccine series. Hepatitis C is not a contraindication for breastfeeding, but reconsider if nipples are cracked or bleeding. Remove nipple accessories before feeding to avoid <http://www.usmle-forums.com/usmle-step-1-forum/6506-absolute-contraindications-breast-feeding.html>

404. Which of the following pubertal events in girls is not estrogen dependent?

- A. Hair growth
- B. Menses
- C. Reaching adult height

D. Vaginal cornification

Answer: A

The presence of estrogen in a pubertal girl stimulates the formation of secondary sex characteristics, including development of breasts, production of cervical mucus, and vaginal cornification. As estrogen levels increase, menses begins and ovulation is maintained for several decades. Ovarian estrogen production late in puberty is at least in part responsible for termination of the pubertal growth spurt, thereby determining adult height. Decreasing levels of estrogen are associated with lower frequency of ovulation, eventually leading to menopause. Hair growth during puberty is caused by androgens from the adrenal gland and, later, the ovary.

405. A woman comes to the clinic with a firm, painless mass in her left breast. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Intraductal papilloma
- C. Medullary carcinoma
- D. Paget disease of breast

Answer: A

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

406. Which of the following is not associated with primary amenorrhea?

- A. Kallman syndrome
- B. Rokitansky syndrome
- C. Sheehan syndrome
- D. Turner syndrome

Answer: C

Sheehan's syndrome, also known as postpartum pituitary gland necrosis, is hypopituitarism (decreased functioning of the pituitary gland), caused by ischemic necrosis due to blood loss and hypovolemic shock during and after childbirth. Most common initial symptoms of Sheehan's syndrome are agalactorrhea (absence of lactation) and/or difficulties with lactation. Many women also report secondary amenorrhea or oligomenorrhea after delivery. Mayer–Rokitansky–Küster–Hauser syndrome, or vaginal agenesis is a congenital malformation characterized by a failure of the Müllerian duct to develop, resulting in a missing uterus and variable degrees of vaginal hypoplasia of its upper portion. Müllerian agenesis (including absence of the uterus, cervix and/or vagina) is the cause in 15% of cases of primary amenorrhoea.

407. Which of the following is the drug of choice for controlling eclamptic seizures?

- A. Diazepam
- B. Magnesium sulfate
- C. Phenobarbital
- D. Phenytoin

Answer: B

1. Preeclampsia is new-onset hypertension and proteinuria after 20 wk gestation.
2. Eclampsia is unexplained generalized seizures in patients with preeclampsia.
3. As soon as eclampsia or severe preeclampsia is diagnosed, Mg sulfate must be given to stop or prevent seizures and reduce reflex reactivity.
4. Magnesium sulfate is used for the prevention of eclamptic seizures. In mild preeclampsia, it is administered during labor and within 24 hours of delivery.
5. The main inconvenience of magnesium sulfate is its toxicity; it manifests with hyporeflexia (depressed deep tendon reflexes) (first sign), respiratory depression, CNS depression, coma, and death by cardiac arrest.
6. The treatment of MgSO₄ toxicity is to immediately stop the infusion then to administer calcium gluconate.

408. A female pregnant woman at 40 weeks of pregnancy with known history of bicornuate uterus present in labor. She felt a kicking movements in her lower abdomen during the pregnancy. On examination, there is round object in the fundus of uteri. Am auscultation the fetal heart has found heart beats above the umbilicus of the mother. Which of the following is the most likely presentation of the fetus in this woman?

- A. Breech
- B. Face
- C. Shoulder
- D. Vertex

Answer: A

A breech birth occurs when a baby is born bottom first instead of head first. Around 3-5% of pregnant women at term (37–40 weeks pregnant) will have a breech baby. Most babies in the breech position are born by a caesarean section because it is seen as safer than being born vaginally. For the diagnosis is used leopold maneuvers: With the first maneuver, the hard fetal head can be palpated at the uterine fundus. Auscultation: Heart sounds can be heard above the umbilicus.

409. A 40-year-old G3P2012 presents for her well-woman examination, her last Pap smear and visit to a doctor was 5 years ago. She has had two vaginal deliveries and her largest baby weighed 4000 g. She denies any current medical problems but had a history of gestational diabetes in her last pregnancy. She had a postpartum bilateral tubal ligation. Her menstrual cycles are regular every 28 days and last 5 days. She is sexually active in a monogamous relationship with her husband of 16 years. She states that with cough she may occasionally lose some urine; otherwise she has no complaints. On examination she weighs 90 kg and her blood pressure is 132/81 mm Hg. Her breast and pelvic examinations are normal. What are the most appropriate screening tests for this patient?

- A. Pap smear, fasting glucose, lipid profile
- B. Pap smear, fasting glucose, lipid profile, mammogram, urinalysis
- C. Pap smear, fasting glucose, lipid profile, urinalysis
- D. Pap smear, gonorrhea, chlamydia testing

Answer: B

Pap smear is indicated since it has been over 3 years since her last Pap smear. Given her history of gestational diabetes and the large birth weight of her child diabetes screening is indicated. Also a lipid profile is indicated every 5 years after the age of 20 years. Her symptoms of urinary incontinence require that urinary tract infection be ruled out as a cause. Most national agencies recommend screening with mammogram for breast cancer beginning at age 40.

410. A 32-year-old woman in her third trimester presents with painless and profuse bright red vaginal bleeding. Pelvic examination is deferred. Transvaginal ultrasonography reveals an abnormally positioned placenta. Which of the following is the most likely diagnosis?

- A. Abruptio placentae
- B. Bloody show
- C. Placenta accreta
- D. Placenta previa
- E. Vasa previa

Answer: D

Placenta praevia is when the placenta attaches inside the uterus but near or over the cervical opening. Symptoms include vaginal bleeding in the second half of pregnancy. The bleeding is bright red and tends not to be associated with pain. Complications may include placenta accreta, dangerously low blood pressure, or bleeding after delivery. Complications for the baby may include fetal growth restriction. Risk factors include pregnancy at an older age and smoking as well as prior cesarean section, labor induction, or termination of pregnancy. Diagnosis is by ultrasound. It is classified as a complication of pregnancy.

411. What is the normal amount of blood loss during vaginal delivery?

- A. 1000 mL
- B. 1500 mL
- C. 2000 mL
- D. 500 mL

Answer: D

The average amount of blood loss after the birth of a single baby in vaginal delivery is about 500 ml (or about a half of a quart). The average amount of blood loss for a cesarean birth is approximately 1,000 ml (or one quart). Most postpartum hemorrhage occurs right after delivery, but it can occur later as well.

412. A patient with endometriosis at greatest risk of developing which of the following?

- A. Breast cancer
- B. Endometrial cancer
- C. Infertility
- D. Premature rupture of the membranes

Answer: C

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Patients with endometriosis do not frequently have any physical examination findings beyond tenderness related to the site of involvement. 3. The most common finding is nonspecific pelvic tenderness. 4. Most commonly affects women age 25-35 with nulliparity or early menarche. Risk factors: 1. Nulliparity 2. Early menarche 3. Shorter menstrual cycles 4. Menstrual outflow obstruction. Clinical picture: 1. Dyspareunia 2. Dysmenorrhea 3. Pelvic pain 4. Infertility. Diagnosis: Laparoscopy is considered the primary diagnostic modality for endometriosis (gold standard). Treatment: 1. First-line therapy: Continuous oral progesterone or oral contraceptive pill (OCP). Progesterone inhibits endometrial growth. 2. Second-line therapy: Testosterone derivatives (Danocrine or danazol) or GnRH analogs (Lupron or leuprolide). Complications of endometriosis may include or fall into the following 3 categories: 1. Infertility/subfertility 2. Chronic pelvic pain and subsequent disability 3. Anatomic disruption of involved organ systems (eg, adhesions, ruptured cysts)

413. A 53-year-old postmenopausal woman, G3P3, presents for evaluation of troublesome urinary leakage for the past 6 weeks. Which of the following is the most appropriate first step in this patient's evaluation?

- A. Cystourethrogram

- B. Intravenous pyelogram
- C. Urethral pressure profiles
- D. Urethrocystoscopy
- E. Urinalysis and culture

Answer: E

When patients present with urinary incontinence, a urinalysis and culture should be performed to evaluate for acute or interstitial cystitis. In patients diagnosed with a urinary tract infection, treatment should be initiated and then the patient should be reevaluated. It is not uncommon for symptoms of urinary leakage to resolve after appropriate therapy. After obtaining the history and physical examination and evaluating a urinalysis and urine culture, initial evaluation of the incontinent patient includes a cystometrogram, check for residual urine volume, stress test, and urinary diary. A cystometrogram is a test that determines urethral and bladder pressures as a function of bladder volume; also noted are the volumes and pressures when the patient first has the sensation of need to void, when maximal bladder capacity is reached, and so on. Residual urine volume is determined by bladder catheterization after the patient has voided; when urine remains after voiding, infection and incontinence may result.

414. Which of the following would increase the risk of occurrence if using hormone replacement therapy?

- A. Breast cancer
- B. Endometrial cancer
- C. Ovarian cancer
- D. Vaginal cancer

Answer: A

A systematic review in 2010 did not support an increased overall cancer risk in users of combined oral contraceptive pills, but did find a slight increase in breast cancer risk among current users, which disappears 5–10 years after use has stopped.

415. A pregnant woman in 3rd trimester suddenly felt a pain in lower abdomen and vaginal bleeding. Cardiotocography shows late deceleration. The uterus is painful and distended. Which of the following is the most

likely diagnosis?

- A. Abrupt placenta
- B. Placenta previa
- C. Uterine rupture
- D. Vasa previa

Answer: A

Abrupt placenta: occurs > 20 weeks of gestation. The uterus is PAINFULL and tender with fetal distress (late decelerations).

In placenta previa and vasa previa, there is painless vaginal bleeding and uterus is soft and not tender.

References:

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416. A female comes to infertility clinic because she cannot conceive and she has amenorrhea. She has a history of three elective abortion and D&C in the past. After estrogen-progesterone challenge test, there is no uterine bleeding. What is the most likely diagnosis in this woman?

- A. Asherman Syndrome
- B. Hashimoto thyroiditis
- C. Sheehan Syndrome
- D. Stein-Leventhal Syndrome

Answer: A

This woman most likely has Asherman Syndrome because of the history of three elective abortion and D&C in the past and no uterine bleeding after the estrogen-progesterone challenge test. Sheehan syndrome is a postpartum hemorrhage in the pituitary gland, usually presents as the inability to breastfeed and hypothyroidism. Hashimoto thyroiditis is autoimmune hypothyroidism and Stein-Leventhal Syndrome is polycystic ovary syndrome.

417. A 30-year-old G2P1001 patient comes to see you in the office at 37 weeks gestational age for her routine OB visit. Her first pregnancy resulted in a vaginal delivery of a 9-lb 8-oz baby boy atier 30 minutes of pushing. On doing Leopold maneuvers during this office visit, you determine that the fetus is breech. Vaginal examination demonstrates that the cervix is 50%

effaced and 1 to 2 cm dilated. The presenting breech is high out of the pelvis. The estimated fetal weight is about 7 lb. The patient denies having any contractions. You send the patient for a sonogram, which confirms a fetus with a double footling breech presentation. There is a normal amount of amniotic fluid present and the head is hyperextended in the “stargazer” position. Which of the following is the best next step in the management of this patient?

- A. Allow the patient to undergo a vaginal breech delivery whenever she goes into labor.
- B. Schedule a cesarean section at or after 41 weeks gestational age.
- C. Schedule an external cephalic version in the next few days.
- D. Send the patient to labor and delivery immediately for an emergent cesarean section.

Answer: A

The patient who has a fetus with a breech presentation has the option of scheduling an external cephalic version, an elective cesarean section at or after 39 weeks, or can elect to have a vaginal breech delivery if certain conditions are met. It is inappropriate to electively deliver any patient prior to 39 weeks without a documentation of fetal lung maturity because of the risk of neonatal respiratory distress syndrome (RDS). Therefore, if a patient declines to undergo a vaginal breech delivery, an elective cesarean should be scheduled at or after 39 weeks gestational age to avoid RDS. If a patient would like to avoid a cesarean section but does not want to undergo a vaginal breech delivery, then an external cephalic version is an appropriate management plan. External cephalic version (ECV) is a procedure where the breech fetus is manipulated through the abdominal wall to change the presentation to vertex. Studies indicate that if an ECV is not performed, 80% of breech presentations will persist at term versus only 30% if a successful version is performed. ECV has an average success rate of about 60%; it is most successful in parous women with an unengaged breech and a normal amount of amniotic fluid (all conditions that exist in the patient described). A trial of labor for a pregnant woman with a fetus in the breech presentation is appropriate if the fetus is frank breech, has a flexed head, has a normal amount of amniotic fluid, and has an estimated weight between 2500 and 3800 g. In addition, the pelvis should be adequate as assessed with x-ray pelvimetry or a history of delivery of a previous baby of bigger size. A fetus with a hyperextended, or “stargazer,” head has a higher risk of spinal cord injury during vaginal breech delivery; therefore delivery should be by cesarean delivery. The best course of management in this case is external cephalic version.

418. A 26-year-old woman complains about swelling of her legs and painful breast, headache, tearfulness, irritability. These symptoms turn up 5 days before menstruation and disappear after its start. Which of the following is the most likely diagnosis?

- A. Dysmenorrhea
- B. Menstrual depression
- C. Paramenstrual syndrome
- D. Premenstrual syndrome

Answer: D

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Often symptoms are present for around six days. A woman's pattern of symptoms may change over time. Symptoms do not occur during pregnancy or following menopause.

419. A 36-year-old man presents to his primary care physician's office complaining of fever and headache. On examination, he has leucopenia, increased liver enzymes, and inclusion bodies are seen in his monocytes. History reveals that he is outdoorsman and that he remembers removing a tick from his leg. Which of the following is the most likely diagnosis?

- A. Ehrlichiosis
- B. Lyme disease
- C. Q fever
- D. Rocky Mountain spotted fever
- E. Tularemia

Answer: A

All the listed diseases except Q fever are tick-borne. Two human forms of ehrlichiosis can occur: HME, caused by *E. chaffeensis*, and HGE, caused by *E. ewingii*. Ehrlichiosis was previously recognized only as a veterinary pathogen. HME infection is transmitted by the brown dog tick and *A. americanum*. HGE infection is transmitted by *I. scapularis*, the same tick that transmits Lyme disease. Both infections cause fever and leukopenia. A rash rarely occurs. *E. chaffeensis* infects monocytes, and HGE infects granulocytes; both organisms produce inclusion bodies called morulae. *Francisella tularensis* is a small, gram-negative, nonmotile coccobacillus. Humans most commonly acquire the organism after contact with the tissues or body fluid of an infected mammal or the bite of an infected tick. The *Rickettsia C. burnetii* causes Q fever, and humans are usually infected by aerosol of a sporelike form shed in milk, urine, feces, or placenta of infected sheep, cattle, or goats. Lyme disease is caused by a spirochete, *B. burgdorferi*, and produces the characteristic lesion erythema chronicum migrans (ECM). The etiologic agent of RMSF is *R. rickettsii*. It usually produces a rash that begins in the extremities and then involves the trunk.

420. A 30-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the treatment of choice for this patient?

- A. IV estrogen
- B. Oral contraceptive
- C. Pelvic muscle exercises
- D. Urethropexy

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity
2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled “chocolate cyst”).
3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus.
4. Laparoscopy is the gold standard for the diagnosis of endometriosis.
5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal.
6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

421. A 17-year-old woman at 22 weeks gestation presents to the emergency center with a 3-day history of nausea, vomiting, and abdominal pain. The pain started in the middle of the abdomen and is now located along her mid to upper right side. She is noted to have a temperature of 38.4°C (101.1°F). She denies any past medical problems or surgeries. How does pregnancy alter the diagnosis and treatment of the disease?

- A. Fetal outcome is improved with delayed diagnosis.
- B. Owing to anatomical and physiological changes in pregnancy, diagnosis is easier to make.
- C. Surgical treatment should be delayed since the patient is pregnant.
- D. The incidence is unchanged in pregnancy.

Answer: D

The incidence of appendicitis in pregnancy is 1 in 2000, the same as that in the nonpregnant population. The diagnosis is very difficult in pregnancy because leukocytosis, nausea, and vomiting are common in pregnancy and the upward displacement of the appendix by the uterus may cause appendicitis to simulate cholecystitis, pyelonephritis, gastritis, or degenerating myomas. Surgery is necessary even if the diagnosis is not certain. Delays in surgery owing to difficulty in diagnosis as the appendix moves up are probably the cause of increasing maternal mortality with increasing gestational age. Premature birth and abortion account for a rate of fetal loss close to 15%.

422. A 28-year-old G1 at 38 weeks had a normal progression of her labor. She has an epidural and has been pushing for 2 hours. The fetal head is direct occiput anterior at +3 station. The fetal heart rate tracing is 150 beats per minute with variable decelerations. With the patient's last push the fetal heart rate had a prolonged deceleration to the 80 seconds for 3 minutes. You recommend forceps to assist the delivery owing to the nonreassuring fetal heart rate tracing. Compared to the use of the vacuum extractor, forceps are associated with an increased risk of which of the following neonatal complications?

- A. Cephalohematoma
- B. Corneal abrasions
- C. Jaundice
- D. Retinal hemorrhage

Answer: B

Corneal abrasions and ocular trauma are more common with forceps versus the vacuum unless the vacuum is inadvertently placed over the eye. Vacuum deliveries have a higher rate of neonatal cephalohematomas, retinal hemorrhages, intracranial hemorrhages, and jaundice.

423. A 42-year-old female complaining absence of menstrual bleeding for 9 months. She has a history of 3 vaginal deliveries but her was done D&C after the third delivery because of the retained part of the placenta. Which of the following is the best method to confirm the diagnosis?

- A. Colposcopy
- B. Hysteroscopy
- C. Laparoscopy
- D. MRI

Answer: B

"Asherman's Syndrome" is a condition characterized by adhesions and/or fibrosis of the endometrium particularly but can also affect the myometrium. It is often associated with dilation and curettage of the intrauterine cavity. A number of other terms have been used to describe the condition and related conditions including: intrauterine adhesions (IUA), uterine/cervical atresia, traumatic uterine atrophy, sclerotic endometrium, endometrial sclerosis, and intrauterine synechiae. It is often characterized by a decrease in flow and duration of bleeding (absence of menstrual bleeding, little menstrual bleeding, or infrequent menstrual bleeding) and become infertile. Menstrual anomalies are often but not always correlated with severity: adhesions restricted to only the cervix or lower uterus may block menstruation. Pain during menstruation and ovulation is sometimes experienced and can be attributed to blockages. It has been reported that 88% of AS cases occur after a D&C is performed on a recently pregnant uterus, following a missed or incomplete miscarriage, birth, or during an elective termination (abortion) to remove retained products of conception. Reference: uptodate.e-medicine.medscape.com Curettage after delivery or abortion may result in endometrial injury and subsequent development of intrauterine adhesions, termed Asherman syndrome. The development of uterine synechiae may also be associated with prior endometrial ablation procedures. Intrauterine adhesions may make future diagnostic curettage more difficult and increase the risk of uterine perforation. Previous procedures such as endometrial ablation may also increase the risk of cervical stenosis. Hysteroscopy is the gold standard for diagnosis. [

424. Which of the following drugs is used for preventing breast cancer in high risk breast cancer patients?

- A. Anastrozole
- B. Cyclophosphamide
- C. Cyclosporine
- D. Trastuzumab

Answer: A

Anastrozole, sold under the brand name Arimidex among others, is a medication used in addition to other treatments for breast cancer. Specifically, it is used for hormone receptor-positive breast cancer. It has also been used to prevent breast cancer in those at high risk. It is taken by mouth.

425. A 29-year-old woman is brought to the emergency room with diffuse abdominal pain, uterine and adnexal tenderness and lightheadedness. Her past medical history is significant for pelvic inflammatory disease. Her temperature is 37 C, blood pressure is 90/60 mm Hg, pulse is 125/min, and respirations are 18/min. Which of the following is the most likely diagnosis?

- A. Normal pregnancy
- B. Placenta previa
- C. Ruptured ectopic pregnancy
- D. Threatened abortion

Answer: C

Ectopic pregnancy (EP) 1. Implantation of zygote outside of uterus 2. Ruptured ectopic pregnancy presents with diffuse abdominal pain, cervical and adnexal tenderness, lightheadedness, and hemodynamic instability. 3. Most commonly occurs in ampulla of fallopian tube (95% of cases) Risk factors of EP: 1. Pelvic inflammatory disease 2. Gynecologic surgery 3. Prior ectopic pregnancy 4. Sexually transmitted diseases 5. Smoking The classic clinical triad of ectopic pregnancy is as follows: 1. Abdominal pain 2. Amenorrhea 3. Vaginal bleeding The presence of the following signs suggests a surgical emergency: 1. Abdominal rigidity 2. Involuntary guarding 3. Severe tenderness 4. Evidence of hypovolemic shock (eg, orthostatic blood pressure changes, tachycardia) Management: 1. Ruptured ectopic pregnancy: Immediate laparotomy/salpingectomy 2. Unruptured ectopic pregnancy: Methotrexate or salpingostomy.

426. A patient at 17 weeks gestation is diagnosed as having an intrauterine fetal demise. She returns to your office 5 weeks later and her vital signs are: blood pressure 110/72 mm Hg, pulse 93 beats per minute, temperature 36.38°C, respiratory rate 16 breaths per minute. She has not had a

miscarriage, although she has had some occasional spotting. Her cervix is closed on examination. This patient is at increased risk for which of the following?

- A. Consumptive coagulopathy
- B. Future infertility
- C. Recurrent abortion
- D. Septic abortion

Answer: A

In women with intrauterine fetal demise, labor usually occurs within 2 weeks. If the fetus is retained longer than 1 month, 25% of women can develop coagulopathy which is manifested by decreased fibrinogen, elevated fibrin degradation products and decreased platelets. Septic abortions were more frequently seen during the era of illegal abortions, although occasionally sepsis can occur if there is incomplete evacuation of the products of conception in either a therapeutic or spontaneous abortion. However, since her cervix is closed and no tissue has passed, septic abortion is unlikely. Intrauterine fetal demise has no impact on future infertility or association with ectopic pregnancies.

427. Which of the following would not be affected in pudendal nerve block?

- A. Perineal body
- B. Rectum
- C. Urogenital diaphragm
- D. Vulva

Answer: B

Blocking the pudendal nerve with an injection of local anesthetic is used for vaginal deliveries and for minor surgeries of the vagina and perineum. The pudendal nerve's 3 branches include the following:

- 1) Dorsal nerve of clitoris, which innervates the clitoris
- 2) Perineal branch, which innervates the muscles of the perineum, the skin of the labia majora and labia minora, and the vestibule
- 3) Inferior hemorrhoidal nerve, which innervates the external anal sphincter and the perianal skin. The rectum is not innervated by pudendal nerve.

428. Which of the following factors is most important in the subsequent development of genital prolapse?

- A. Childbirth trauma
- B. Chronic straining at bowel movements
- C. Menopause
- D. Multiple deliveries
- E. Poor tissue quality

Answer: B

Though most women with Pelvic Organ Prolapse often have no symptoms, some women experience:

Discomfort (usually pressure or fullness)

Bleeding from the exposed skin that rubs on pads or underwear

Urinary symptoms of leakage, difficulty starting the stream of urine, or frequent urinary tract infections

Difficult bowel movements—the need to strain or push on the vagina to have a bowel movement

A bulge near the opening of the vagina or a sensation of pressure in their pelvic region and/or lower abdomen

Symptoms often progress very gradually. And you may make changes in physical or social activities that go unnoticed by others until they become extreme

As Pelvic Organ Prolapse worsens, you may notice:

A bulging, pressure or heavy sensation in the vagina that worsens by the end of the day or during bowel movements

The feeling of “sitting on a ball”

Needing to push stool out of the rectum by placing fingers into or around the vagina during a bowel movement

Difficulty starting to urinate or a weak or spraying stream of urine

Urinary frequency or the sensation that you are unable to empty the bladder well

Lower back discomfort

The need to lift up the bulging vagina or uterus to start urination

Urinary leakage with intercourse. Though unusual, severe prolapse can block the flow of urine and cause recurrent urinary tract infections or even kidney damage.

429. A 46-year-old woman G2P2 expressed that she wants to get pregnant again, but she had amenorrhea for 7 months now. Which of the following is the most important laboratory findings which would help you tell her whether she can or can not get pregnant?

- A. Estrogen level
- B. LH and FSH Level
- C. Prolactin level
- D. TSH level

Answer: B

This woman probably has menopause. Menopause, also known as the climacteric, is the time in most women's lives when menstrual periods stop permanently, and they are no longer able to bear children.

Menopause typically occurs between 49 and 52 years of age. Medical professionals often define menopause as having occurred when a woman has not had any vaginal bleeding for a year. It may also be defined by a decrease in hormone production by the ovaries. The depletion of the ovarian reserve causes an increase in circulating follicle-stimulating hormone (FSH) and luteinizing hormone (LH) levels because there are fewer oocytes and follicles responding to these hormones and producing estrogen.

430. A 17-year-old individual who is phenotypically female presents for workup of primary amenorrhea and is found to have an XY karyotype. Which of the following is the most likely diagnosis?

- A. Androgen insensitivity syndrome
- B. Female pseudohermaphroditism
- C. Kallmann's syndrome
- D. Turner's syndrome

Answer: A

Sexual ambiguity arises when there is disagreement between the various ways of determining sex. Genetic sex is determined by the presence or absence of a Y chromosome. Gonadal sex is based upon the histologic appearance of the gonads. Ductal sex depends on the presence of derivatives of the Müllerian or Wolffian ducts. Phenotypic or genital sex is based on the appearance of the external genitalia. True hermaphroditism refers to the presence of both ovarian and testicular tissue. Pseudohermaphroditism is a disagreement between the phenotypic and gonadal sex. A female pseudohermaphrodite has ovaries but external male genitalia, while a male pseudohermaphrodite has testicular tissue, resulting from an XY genital sex karyotype, but female external genitalia. Female pseudohermaphroditism results from excessive exposure to androgens during early gestation; most often this is the result of congenital adrenal hyperplasia. Male pseudohermaphroditism results from defective virilization of the male embryo, most commonly caused by complete androgen insensitivity syndrome, also called testicular feminization. Kallmann's syndrome results from a lack of embryonic migration of cells from the olfactory bulb to the hypothalamus and is characterized by primary amenorrhea, lack of secondary sex characteristics, and decreased sense of smell (hyposmia). Laboratory findings include decreased GnRH, LH, and FSH. Mixed gonadal dysgenesis consists of one well-defined testis and a contralateral streak ovary. It is a cause of ambiguous genitalia in the newborn. Turner's syndrome, which has a 45,XO karyotype, is characterized by a female phenotype and bilateral streak ovaries.

431. A 68-year-old woman is seen for evaluation of a swelling in the right, posterior aspect of her vaginal opening. She has noted pain in this area when walking and during coitus. At the time of pelvic examination, a mildly tender, firm mass is noted just outside the introitus in the right vulva at approximately 8 o'clock. Which of the following is the most appropriate treatment?

- A. Administration of antibiotics
- B. Incision and drainage
- C. Marsupialization
- D. Surgical excision

Answer: D

Although rare, adenocarcinoma of the Bartholin gland must be excluded in women more than 40 years of age who present with a cystic or solid mass in this area. The incidence peaks in women in their sixties. The appropriate treatment in these cases is surgical excision of the Bartholin gland to allow for a careful pathologic examination. In cases of abscess formation, both marsupialization of the sac and incision with drainage as well as appropriate antibiotics are accepted modes of therapy. In the case of the asymptomatic Bartholin cyst, no treatment is necessary.

432. A pregnant lady at 25 weeks of pregnancy has a blood pressure 158/89. 2 weeks ago her blood pressure was 160/96. She doesn't have proteinuria. Before the pregnancy, there was no elevation of blood pressure. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Essential hypertension
- C. Gestational hypertension
- D. Preeclampsia

Answer: C

Gestational hypertension (formerly known as pregnancy-induced hypertension): Idiopathic hypertension without significant proteinuria (< 300 mg/L) that develops at > 20 weeks' gestation. As many as 25% of patients may go on to develop preeclampsia.

Preeclampsia: New-onset hypertension (SBP ≥ 140 mmHg or DBP ≥ 90 mmHg) and proteinuria (> 300 mg of protein in a 24-hour period) occurring at > 20 weeks' gestation.

Reference: First Aid USMLE Step 2 CK 2014, page 340

433. -A pregnant lady in her first trimester did not have any vaccination for rubella. Which of the following is the best next step for this woman?

- A. Give MMR immediately
- B. Give MMR in the third trimester
- C. Give the MMR in the second trimester
- D. Give MMR after the delivery

Answer: D

Remember that MMR, varicella, and HPV vaccines are contraindicated during pregnancy. So if the Pt is not immunized give MMR vaccine after delivery-The measles, mumps, rubella, and chickenpox (varicella) vaccines are particularly important for women of childbearing age who are susceptible to these infections and who may become pregnant because these vaccines are contraindicated during pregnancy, and infection occurring in non-immune pregnant women can adversely affect pregnancy outcome. Reference: Hacker and Moore's, page 10, 5th edition <https://www.uptodate.com/contents/vaccination-during-pregnancy-beyond-the-basics>

434. Which of the following muscles will be not affected during 2nd degree perineal tear?

- A. Bulbocavernosus
- B. Ischial
- C. Perineal muscle
- D. Superficial transverse

Answer: B

It depends on the degree of the perineal tear:

1st degree: vaginal mucosa affected only (skin and subcutaneous tissue but the perineal muscles remain Intact). 2nd degree:

involvement of perineal body muscles which includes: (not anal sphincter) bulbocavernosus, superficial transverse, perineal muscle, pubococcygeus muscles

3rd degree: involvement of the external anal sphincter and/ internal anal sphincter.

4th degree: extent through the anal mucosa.

Reference: UpToDate

435. A 23-year-old girl presents to the physician with a primary amenorrhea. Examination shows normal breast development and minimal axillary and pubic hair. Her external genitalia appears normal but the vagina is short and the cervix is not visible. Bimanual examination confirms the absence of a uterus and cervix and the ovaries are not palpable. Which of the following is the most likely diagnosis?

- A. 5- α -reductase deficiency
- B. Androgen insensitivity syndrome
- C. Hypothalamic-pituitary failure
- D. Turner syndrome

Answer: B

Androgen Insensitivity Syndrome

1. It is **X-linked disorder**
2. It is due to defect in androgen receptor gene
3. All infants are **46, XY**
4. All infants have testes and normal testosterone levels

Clinical presentation

1. Infant is phenotypically female at birth
2. Most infants raised as female and identify with female gender
3. External genitalia are female and the vagina ends in a blind pouch
4. No uterus
5. Fallopian tubes may or may not be present
6. Testes are usually intra-abdominal
7. At puberty breast develop normally
8. No menses
9. Sexual hair does not appear
10. Normal male adult height
11. Testosterone may be normal or high

436. A 22- years-old woman comes to the office with complaints of bilateral clear breast nipple discharge which occurs with breast manipulation. She has a regular menstrual cycle and all physical examination is normal. Which of the following is the best next step for this woman?

- A. ACTH
- B. MRI of brain
- C. Mammogram
- D. Prolactin hormone
- E. Reassurance

Answer: E

Benign nipple discharge is usually bilateral, multiductal, and occurs with breast manipulation. Conversely, the risk of cancer is higher when the discharge is spontaneous, bloody, unilateral, uniductal, associated with a breast mass, and/or occurs in a woman over 40 years of age. <https://www.uptodate.com/contents/nipple-discharge>

437. Stage Ib cervical cancer is diagnosed in a 41-year-old woman who wishes to retain her ability to have sexual intercourse. Your consultant has therefore recommended a radical hysterectomy. Assuming that the cancer is confined to the cervix and that intraoperative biopsies are negative, which of the following structures would not be removed during the radical hysterectomy?

- A. Both ovaries
- B. Pelvic nodes
- C. The entire parametrium on both sides of the cervix
- D. Uterosacral and uterovesical ligaments

Answer: A

Radical hysterectomy was popularized by Meigs in the 1940s and has become a very safe procedure in skilled hands. It is most often used as primary treatment for early cervical cancer (stages Ib and IIa), and occasionally as primary treatment for uterine cancer. In either case, there must be no evidence of spread beyond the operative field, as suggested by negative intraoperative frozen section biopsies. The procedure involves excision of the uterus, the upper third of the vagina, the uterosacral and uterovesical ligaments, and all of the parametrium, and pelvic node dissection including the ureteral, obturator, hypogastric, and iliac nodes. Radical hysterectomy thus attempts to preserve the bladder, rectum, and ureters while excising as much as possible of the remaining tissue around the cervix that might be involved in microscopic spread of the disease. Ovarian metastases from cervical cancer are extremely rare. Preservation of the ovaries is generally acceptable, particularly in younger women, unless there is some other reason to consider oophorectomy.

438. A 1-month-old infant with a bright red rash and purulent conjunctivitis is admitted to the hospital. Examination revealed eosinophilia, low lymphocyte count, and no thymic shadow. Lymphnodes were enlarged and

opportunistic infections noted. The diagnosis was a form of SCID termed Omenn syndrome, an autosomal recessive form of SCID. Mutations in which of the following would explain this disease?

- A. CD3 or TCR $\alpha\beta$
- B. CD4 or CD8
- C. MHC class I
- D. MHC class II
- E. RAG-1 or RAG-2

Answer: E

This is characterized by the lack of a functional TCR and BCR. Defects in recombination activating genes 1 and 2 (RAG-1 and RAG-2) would result in the lack of TCR and BCR gene rearrangement and subsequent protein expression. The outcome is T and B cells absent of antigen receptors making them absent of immune function.

439. A pregnant lady with history of 2 SvD with normal babies of 3 kg. The baby is breech and the head is flexed she found to have bicornuate uterus . And the baby weight is 2kg . What is the contraindication for external cephalic version?

- A. Baby weight
- B. Bicornuate uterus.
- C. Flexion of the head
- D. Hyperextended head.

Answer: B

There are two types of contraindications : Relative contraindication means that caution should be used when two drugs or procedures are used together. (It is acceptable to do so if the benefits outweigh the risk.) Absolute contraindication it means that event or substance could cause a life-threatening situation thus it should be avoided. External cephalic version is a procedure in which the fetus is rotated from the breech to the cephalic presentation by manipulation through the mother's abdomen. ECV is indicated if breech presentation is persistent after 37 weeks. If ECV fails, then do cesarean delivery.

Absolute Contraindications

1. If caesarean section is indicated, e.g. placenta previa, previous Classical Caesarean section.
2. Abnormal cardiotocography; fetal heart rate abnormalities
3. Ruptured membranes
4. Contracted pelvis
5. Fetal death
6. Placental abruption

Relative contraindication

1. Small-for-gestational-age fetus with abnormal Doppler parameters; Fetal hypoxia
2. Pre-eclampsia with proteinuria; or Antepartum haemorrhage in the last week
3. Major fetal anomalies; Unstable lie; Multiple pregnancy
4. A restrictive nuchal cord, Hyper-extended head
5. Major uterine anomaly ; Scarred uterus
6. Oligohydramnios or hydramnios

440. Advantages of ultrasound nuchal translucency over biochemical screening for Down syndrome include?

- A. Better in multiple gestation
- B. More consistent measurements than lab tests
- C. More convenient for patients
- D. Uses transvaginal approach
- E. Wide gestational age range

Answer: A

Ultrasound examination may exclude or confirm multiple gestations.

441. A patient who is on estrogen therapy is complaining of dysuria, urgency, and frequency for a few months. She took different antibiotics multiple times but they didn't help. Which of the following is the cause of her symptoms?

- A. Bacterial vaginosis
- B. Chlamydia trachomatis
- C. Fungal infection
- D. Trichomonas vaginalis

Answer: C

This woman most likely has urinary tract infection caused by fungal infection. Because multiple different antibiotics didn't help the problem is the most likely fungus.

442. A 26-year old female after delivery started the mild pelvic pain. Her vital signs are t=37,6C, blood pressure 130/80 mm Hg. She has a white, cheesy, vaginal discharge. Microscopy with 10% KOH shows pseudohyphae. Which of the following is the most likely diagnosis in this patient?

- A. Bacterial vaginosis
- B. Candidiasis
- C. Trichomoniasis
- D. Zygomycosis

Answer: B

This woman most likely has candidiasis based on microscopy findings with 10%KOH which shows pseudohyphae. The vaginal discharge caused by Candida is white, cheesy.

443. A healthy 32-year-old G2P1001 presents to labor and delivery at 30 weeks gestation complaining of a small amount of bright red blood per vagina which occurred shortly after intercourse. It started off as spotting and then progressed to a light bleeding. By the time the patient arrived at labor and delivery, the bleeding had completely resolved. The patient denies any regular uterine contractions, but admits to occasional abdominal cramping. She reports no pregnancy complications and she has had normal ultrasounds done at 18 weeks of gestation. Her obstetrical history is significant for a previous low transverse cesarean section at term. Vital

signs are normal. Tocometer shows contractions every 8 to 10 minutes, and the fetal heart rate tracing is reactive. Which of the following can be ruled out as a cause for her vaginal bleeding?

- A. Placenta previa
- B. Placental abruption
- C. Preterm labor
- D. Vasa previa

Answer: D

Vasa previa occurs when fetal vessels overlie the cervical os from velamentous insertion of the umbilical cord. They are susceptible to compression and laceration with rupture of membranes. Bleeding from a vasa previa causes fetal exsanguination and since only a small amount of bleeding is necessary to kill a fetus, death is almost instantaneous if it goes unrecognized. Since the fetal heart tones are normal, vasa previa can be ruled out. Cervical inflammation (cervicitis) can render the cervix friable and able to bleed easily, especially after intercourse. Placental abruption occurs when there is a premature separation of the placenta from the uterine wall. While vaginal bleeding can be observed, the hemorrhage can be completely concealed, with the blood being trapped between the detached placenta and the uterine wall. Labor can be associated with vaginal bleeding caused by cervical dilation. Placenta previa occurs when the placenta is located over or in close proximity to the internal os of the cervix. When the lower uterine segment is formed or cervical dilation occurs in the presence of placenta previa, a certain degree of spontaneous placental separation and hemorrhage from disrupted blood vessels will occur.

444. Which of the following would be most likely found in laboratory values of polycystic ovarian syndrome?

- A. FSH:LH >1:3
- B. FSH:LH >2:1
- C. Progesterone:Estrogen < 1:3
- D. Progesterone:Estrogen >2:1

Answer: A

The LH-to-FSH ratio is usually greater than 3. Reference: MEDSCAPE

445. You are seeing a patient in the hospital for decreased fetal movement at 36 weeks gestation. She is healthy and has had no prenatal complications. You order a BPP. The patient scores an 8 on the test. Two points were deducted for lack of fetal breathing movements. How should you counsel the patient regarding the results of the BPP?

- A. The results are abnormal, and she should be induced.
- B. The results are abnormal, and she should undergo emergent cesarean section.
- C. The results are equivocal, and she should have a repeat BPP within 24 hours.
- D. The results are normal, and she can go home.

Answer: D

A BPP score of 8 or 10 is normal. A score of 0 to 2 dictates imminent delivery, because fetal asphyxia is probable. Scores of 4 to 6 require repeat testing and delivery if persistent.

446. Which of the following is the drug of choice for megaloblastic anemia in pregnant woman?

- A. Cyanocobalamin
- B. Folic acid
- C. Niacin
- D. Pyridoxine

Answer: B

In healthy women - the dose of folic acid is 0.4-1 mg daily for 1-3 months preconceptually and throughout the pregnancy

If there past history of NTD, DM, or antiepileptic medication - use 5 mg folic acid daily

Source : Toronto Notes

Reference: <http://www.ncbi.nlm.nih.gov/pubmed/8612357>

447. A 22-year-old woman consults you for treatment of hirsutism. She is obese and has facial acne and hirsutism on her face and periareolar regions and a male escutcheon. Serum LH level is 35 mIU/mL and FSH is 9 mIU/mL.

Androstenedione and testosterone levels are mildly elevated, but serum DHAS is normal. The patient does not wish to conceive at this time. Which of the following single agents is the most appropriate treatment of her condition?

- A. Corticosteroids
- B. GnRH
- C. Oral contraceptives
- D. Parlodel

Answer: C

This patient has polycystic ovarian syndrome (PCOS), diagnosed by the clinical picture, abnormally high LH-to-FSH ratio (which should normally be approximately 1:1), and elevated androgens but normal DHAS. DHAS is a marker of adrenal androgen production; when normal, it essentially excludes adrenal sources of hyperandrogenism. Several medications have been used to treat hirsutism associated with PCOS. For many years, contraceptives were the most frequently used agents; they can suppress hair growth in up to two-thirds of treated patients. They act by directly suppressing ovarian steroid production and increasing hepatic-binding globulin production, which binds circulating hormone and lowers the concentration of metabolically active (free unbound) androgen. However, clinical improvement can take as long as 6 months to manifest. Other medications that have shown promise include medroxyprogesterone acetate, spironolactone, cimetidine, and GnRH agonists, which suppress ovarian steroid production. However, GnRH analogues are expensive and have been associated with significant bone demineralization after only 6 months of therapy in some patients. Eflornithine hydrochloride is an antimetabolite topical cream indicated in the treatment of facial hirsutism. It is not indicated for the treatment of widespread hirsutism as in this patient's case.

448. A female pregnant woman has a uterine fibroid 1*1cm. Which of the following complication is typical for this fibroid.

- A. Degeneration is common
- B. Malignisation
- C. Risk of preterm labor
- D. Usually asymptomatic

Answer: D

Uterine fibroids, also known as uterine leiomyomas or fibroids, are benign smooth muscle tumors of the uterus. Most women have no symptoms while others may have painful or heavy periods. A woman can have one uterine fibroid or many. Occasionally, multiple or large fibroids may make it difficult to become pregnant, although this is uncommon and if they are small they are usually asymptomatic.

449. A previously healthy 25-year-old music teacher develops fever and a rash over her face and chest. The rash is itchy and, on examination, involves multiple papules and vesicles in varying stages of development. One week later, she complains of cough and is found to have an infiltrate on x-ray. Which of the following is the most likely etiology of the infection?

- A. *Chlamydia psittaci*
- B. *Histoplasma capsulatum*
- C. *Mycoplasma pneumoniae*
- D. *Streptococcus pneumoniae*
- E. Varicella-zoster virus

Answer: E

Varicella pneumonia develops in about 20% of adults with chickenpox. It occurs 3 to 7 days after the onset of the rash. The hallmarks of the chickenpox rash are papules, vesicles, and scabs in various stages of development. Fever, malaise, and itching are usually part of the clinical picture. The differential can include some coxsackievirus and echovirus infections, which might present with pneumonia and vesicular rash. Rickettsial pox, a rickettsial infection, has also been mistaken for chickenpox. Although the pneumococcus, *Mycoplasma*, and *Chlamydia* are common causes of community-acquired pneumonia in young adults, they would not account for the preceding vesicular rash. Histoplasmosis can cause acute pneumonitis after a large exposure but would not account for the rash.

450. An obese 46-year-old G6P1051 with type 1 diabetes since age 12 presents to your office complaining of urinary incontinence. She has been menopausal since age 44. Her diabetes has been poorly controlled for years because of her noncompliance with insulin therapy. She often cannot

tell when her bladder is full, and she will urinate on herself without warning. Which of the following factors in this patient's history has likely contributed the most to the development of her urinary incontinence?

- A. Menopause
- B. Obesity
- C. Obstetric history
- D. Suboptimal diabetic control

Answer: D

Poorly controlled diabetes can result in neuropathies to various organs including the bladder. This can result in loss of bladder sensation and subsequent overflow urinary incontinence. Diabetes is not a cause of pelvic relaxation. In pelvic relaxation, there is a loss of connective tissue support adjacent to the reproductive tract organs and in the perineum. Natural aging of the tissue, intrinsic weaknesses caused by genetics, birth trauma, hypoestrogenism, and chronic elevation of intraabdominal pressure because of obesity, cough, or heavy lifting are all factors that contribute to pelvic relaxation.

451. Why during pregnancy in case of pre-eclampsia and eclampsia is given MgSO₄?

- A. To decrease blood pressure
- B. To induce delivery
- C. To prevent delivery
- D. To reduce the risk of seizures.

Answer: D

The prevention of seizure activity in pre-eclampsia and recurrent seizures in eclamptic patients is an essential aspect of management. Many drugs with anticonvulsant properties have been used to treat patients with pre-eclampsia and eclampsia. Magnesium sulfate is a significantly better drug than either diazepam or phenytoin for preventing recurrent seizures in eclamptic patients. Magnesium sulfate has diverse cardiovascular and neurological effects and also alters calcium metabolism. Magnesium sulfate is now the drug choice for treating eclamptic patients.

<https://www.ncbi.nlm.nih.gov/pubmed/8879973>

452. A 22-year-old nulligravid college woman complains of painful and heavy menses for the past five years. These symptoms are associated with cramping located in her lower abdomen that radiates to her lower back and inner thighs. She has nausea and vomiting. The pelvic exam is normal. Which of the following is the best treatment option for her?

- A. Desmopressin
- B. Estrogen
- C. Oral contraceptive pills
- D. Progestins

Answer: C

Oral contraceptives: Suppress endometrial development, reestablish predictable bleeding patterns, decrease menstrual flow, and lower the risk of iron deficiency anemia.

Estrogen: Prolonged uterine bleeding suggests the epithelial lining of the cavity has become denuded over time; estrogen administered alone will rapidly induce a return to normal endometrial growth.

Progestins: Chronic management of AUB requires episodic or continuous exposure to a progestin.

Desmopressin: A synthetic analog of arginine vasopressin, desmopressin has been used as a last resort to treat abnormal uterine bleeding in patients with documented coagulation disorders hysterectomy endometrial ablation.

References: Toronto notes 2017, GY12.
<http://emedicine.medscape.com/article/257007-overview>

453. A 34-year-old woman comes with complaints that her labor started 11 hours ago and with painful contractions that started after discharge of waters. Suddenly she got knife-like pain in the lower abdomen and labor activity stopped. Examination revealed positive symptoms of peritoneum irritation, ill-defined uterus outlines. The fetus was easily palpable, movable. Which of the following is the most likely diagnosis in this woman?

- A. Discoordinated labor activity
- B. Risk of uterine rupture
- C. Uterine inertia
- D. Uterine rupture

Answer: D

Uterine rupture is a serious event during childbirth by which the integrity of the myometrial wall is breached. In an incomplete rupture the peritoneum is still intact. With a complete rupture the contents of the uterus may spill into the peritoneal cavity or the broad ligament. A uterine rupture is a life-threatening event for mother and baby. A uterine rupture typically occurs during active labor, but may also develop during late pregnancy. Uterine dehiscence is a similar condition, but involves fewer layers, less bleeding, and less risk.

454. You are an intern working the night shift in the emergency department. During the evaluation of a sexual assault victim, your attending physician asks you to order the appropriate laboratory tests. Which of the following tests should be ordered?

- A. Chlamydia and gonorrhea cultures, HIV, HBsAg, Pap smear, RPR, and urine pregnancy test
- B. Chlamydia and gonorrhea cultures, HIV, HBsAg, RPR, urine culture, and urine pregnancy test
- C. Chlamydia and gonorrhea cultures, complete blood count, HIV, HBsAg, Pap smear, and RPR
- D. HIV, HBsAg, Pap smear, RPR, and urine pregnancy test

Answer: B

The following are the initial laboratory tests that should be performed at the time of examining a rape victim: gonorrhea and chlamydia cultures from the vagina, anus, and throat; RPR; hepatitis antigens; HIV; U/A; urine C and S; and pregnancy test. A pap smear is a screening test for cervical cancer and is not part of the evaluation in cases of rape and sexual assault.

455. During your evaluation of a sexual assault victim in the emergency department, she expresses her fear of becoming pregnant due to the attack. Which of the following is the best method to recommend for emergency contraception?

- A. An intrauterine device, because it is 99% effective.
- B. Combination estrogen and progestin contraceptive pills.
- C. None, because it will cause an abortion and is morally wrong.
- D. Plan B, a progestin only contraception.

Answer: D

“Emergency contraception” (medication prophylaxis) to prevent pregnancy should be offered to women following sexual assault. First there should be a pregnancy test to exclude pregnancy. Nausea is a very common side effect with combination estrogen/progestin pills used for emergency contraception. Plan B, a progestin only form of emergency contraception, has a much lower rate of nausea and is better tolerated, making it the preferred choice. Prophylaxis can be given up to 72 hours after the assault but has been shown to be effective up to 5 days after the rape. Emergency contraception has efficacy rates of 74% to 89%. Patients should be informed that their next menses may be delayed and counseled to get a pregnancy test if it is delayed more than 2 weeks. A copper IUD can be inserted for emergency contraception but should be avoided until active infection can be ruled out.

456. On postoperative day 3 after an uncomplicated repeat cesarean delivery, the patient develops a fever of 38.2°C (100.8°F). She has no complaints except for some fullness in her breasts. On examination she appears in no distress; lung and cardiac examinations are normal. Her breast examination reveals full, firm breasts bilaterally slightly tender with no erythema or masses. She is not breast-feeding. The abdomen is soft with firm, non-tender fundus at the umbilicus. The lochia appears normal and is non-odorous. Urinalysis and white blood cell count are normal. Which of the following is a characteristic of the cause of her puerperal fever?

- A. Appears 3 to 4 days after the development of lacteal secretion
- B. Appears in less than 5% of postpartum women
- C. Is almost always painless
- D. Is less severe and less common if lactation is suppressed

Answer: D

Puerperal fever from breast engorgement is relatively uncommon, affecting 13% to 18% of postpartum women. It appears 24 to 48 hours following initiation of lacteal secretion and ranges from 38°C to 39°C (100.4°F to 102.2°F). Pain is an early and common symptom. Treatment consists of breast support, ice packs, and pain relievers.

457. A 71-year-old female present with vaginal dryness, burning and dyspareunia. She also has dysuria and increased urinary frequency. The symptoms have been present for several months but have intensified recently. Physical examination shows scarce pubic hair and reduced elasticity and turgor of the vulvar skin. Pale, dry and smooth vaginal epithelium is noted. Urine dipstick is normal. Which of the following is treatment of choice for this patient?

- A. Atrophic vaginitis
- B. Bacterial Vaginosis
- C. Candidiasis
- D. Gonorrhoea

Answer: A

Atrophic vaginitis is very common in postmenopausal women, due to the falling levels of estrogen. The term genitourinary syndrome of menopause (GSM) is now usually used instead of vulvovaginal atrophy or atrophic vaginitis.

The following can lead to atrophic vaginitis occurring:

1. Natural menopause or oophorectomy.
2. Anti-estrogenic treatments - eg, tamoxifen, aromatase inhibitors.
3. Radiotherapy or chemotherapy.
4. It can also occur postpartum or with breast-feeding, due to reduced oestrogen levels.

Symptoms

1. There may be no symptoms.
2. Dryness of the vagina is the most common symptom.
3. There may be burning or itching of the vagina or vulva.
4. Dyspareunia.
5. Vaginal discharge (usually white or yellow).
6. Vaginal bleeding or postcoital bleeding.
7. Urinary symptoms - eg, increased frequency, nocturia, dysuria, recurrent UTI, stress incontinence or urgency.

Signs

1. External genitalia may show reduced pubic hair, reduced turgor or elasticity, and a narrow introitus.
2. Be aware that vaginal examination may be uncomfortable or painful if the patient has atrophic vaginitis.
3. Vaginal examination may show:
 - Thin mucosa with diffuse erythema.
 - Occasional petechiae or ecchymoses.
 - Dryness.
 - Lack of vaginal folds.

458. A 28-years-old diabetic female DM1 controlled by insulin she is married and wants to become pregnant. Her blood glucose is well controlled. She is asking about when she must control her metabolic state to decrease the risk of having congenital anomalies in her baby?

- A. 1st trimester
- B. 2nd trimester
- C. 3rd trimester
- D. before conception

Answer: D

Infants of diabetic mothers have experienced a nearly 30-fold decrease in morbidity and mortality rates since the development of specialized maternal, fetal, and neonatal care for women with diabetes and their offspring. Therefore good control of glucose level in diabetic women is crucial before the conception.

459. A 26-year-old G1P0 patient at 34 weeks gestation is being evaluated with Doppler ultrasound studies of the fetal umbilical arteries. The patient is a healthy smoker. Her fetus has shown evidence of intrauterine growth restriction (IUGR) on previous ultrasound examinations. The Doppler studies currently show that the systolic to diastolic ratio (S/D) in the umbilical arteries is much higher than it was on her last ultrasound 3 weeks ago and there is now reverse diastolic flow. Which of the following is correct information to share with the patient?

- A. The Doppler studies are worrisome and indicate that the fetal status is deteriorating.
- B. The Doppler studies indicate that the fetus is doing well.
- C. These Doppler findings are normal in someone who smokes.
- D. With advancing gestational age the S/D ratio is supposed to rise.

Answer: A

Simple continuous-wave Doppler ultrasound can be used to display flow velocity waveforms as a function of time. With increased gestational age, in normal pregnancy there is an increase in end-diastolic flow velocity relative to peak systolic velocity, which causes the S/D ratio to decrease with advancing gestation. An increase in S/D ratio is associated with increased resistance in the placental vascular bed as can be noted in preeclampsia or fetal growth retardation. Nicotine and maternal smoking have also been reported to increase the S/D ratio. Many studies document the value of umbilical Doppler flow studies in recognition of fetal compromise. It seems that the S/D ratio increases as the fetal condition deteriorates; this is most severe in cases of absent or reversed end diastolic flow. In normal twins, the S/D ratio falls within the normal range for singletons. Doppler studies have been used for intensive surveillance in cases of twin-to-twin transfusion.

460. A 25-year-old female patient complains about having amenorrhea for 3 years. She associates it with difficult labor complicated by massive hemorrhage. She also complains of loss of weight, hair fragility, and loss, lack of appetite and depression. Objective examination reveals no pathological changes of the uterus and ovaries. Which of the following is the most likely the disease pathogenesis?

- A. Hyperproduction of androgens
- B. Hyperproduction of estrogens
- C. Hypoproduction of gonadotropin
- D. Hypoproduction of progesterone

Answer: C

Sheehan's syndrome, also known as postpartum pituitary gland necrosis, is hypopituitarism (decreased functioning of the pituitary gland), caused by ischemic necrosis due to blood loss and hypovolemic shock during and after childbirth. Hormonal assay : there may be low level of T4, TSH, Estrogen, Gonadotropin, Cortisol and ACTH depending on the extent of necrosis

461. A pregnant woman with diabetes mellitus is on insulin treatment. Which of the following is the best next step for this woman?

- A. Decrease the dose of insulin
- B. HbA1C
- C. Increase the dose of insulin
- D. Repeat oral glucose tolerance test

Answer: B

Once the diagnosis of diabetes is established in a pregnant woman, continued testing for glycemic control and diabetic complications is indicated for the remainder of the pregnancy. First-trimester laboratory studies HbA1C Blood urea nitrogen (BUN) Serum creatinine Thyroid-stimulating hormone Free thyroxine levels Spot urine protein-to-creatinine ratio Capillary blood sugar levels Second-trimester laboratory studies Spot urine protein-to-creatinine study in women with elevated value in first trimester Repeat HbA1C Capillary blood sugar levels Ultrasonography First trimester - Ultrasonographic assessment for pregnancy dating and viability Second trimester - Detailed anatomic ultrasonogram at 18-20 weeks and a fetal echocardiogram if the maternal glycohemoglobin value was elevated in the first trimester Third trimester - Growth ultrasonogram to assess fetal size every 4-6 weeks from 26-36 weeks in women with overt preexisting diabetes; perform a growth ultrasonogram for fetal size at least once at 36-37 weeks for women with gestational diabetes mellitus

462. What is the mean age of menopause in normal women ?

- A. 46
- B. 49
- C. 51
- D. 60

Answer: C

1. Menopause is physiologic or iatrogenic cessation of menses (amenorrhea) due to decreased ovarian function.
2. The mean age of menopause in normal women ranges between 50 and 52 years.
3. Changes in the menstrual cycle usually begin during a woman's 40s, with variation in cycle length. A persistent difference in consecutive menstrual cycle length of ≥ 7 days defines early menopausal transition. Skipping ≥ 2 cycles defines late menopausal transition.
4. The marked fluctuations in estrogen levels may contribute to other peri-menopausal symptoms and signs such as (Breast tenderness, changes in menstrual flow, moodiness and exacerbation of menstrual migraines)
5. Symptoms can last from 6 mo to > 10 yr and range from nonexistent to severe.
6. Manifestations may include hot flushes and vulvovaginal atrophy.
7. Diagnosis is clinical: absence of menses for 1 year.
8. Manifestations may be treated (eg, with lifestyle modification, complementary and alternative medicine, and/or hormone therapy).

463. Which of the following associated with polycystic ovary syndrome?

- A. Autoimmune liver disease
- B. Depression and anxiety
- C. High blood pressure
- D. Weight gain

Answer: A

A diagnosis of PCOS suggests an increased risk of the following:

Endometrial hyperplasia and endometrial cancer (cancer of the uterine lining) are possible, due to overaccumulation of the uterine lining, and also lack progesterone resulting in prolonged stimulation of uterine cells by estrogen. It is not clear whether this risk is directly due to the syndrome or from the associated obesity, hyperinsulinemia, and hyperandrogenism.

Insulin resistance/Type II diabetes. A review published in 2010 concluded that women with PCOS have an elevated prevalence of insulin resistance and type II diabetes, even when controlling for body mass index (BMI). PCOS also makes a woman, particularly if obese, prone to gestational diabetes.

High blood pressure, in particular, if obese or during pregnancy.

Depression and anxiety Dyslipidemia – disorders of lipid metabolism – cholesterol and triglycerides.

Cardiovascular disease, with a meta-analysis estimating a 2-fold risk of arterial disease for women with PCOS relative to women without PCOS, independent of BMI.

Strokes.

Weight gain.

Miscarriage.

Sleep apnea, particularly if obesity is present.

Non-alcoholic fatty liver disease, again particularly if obesity is present.

Acanthosis nigricans (patches of darkened skin under the arms, in the groin area, on the back of the neck).

Autoimmune thyroiditis.

The risk of ovarian cancer and breast cancer is not significantly increased overall.

464. A female was diagnosed with ductal carcinoma. Her mother and grandmother have a breast cancer too. She wants to do genetic testing. Which of the following genes are associated with breast cancer?

A. Cyclin D

- B. Fibrillin
- C. MEN
- D. Tp53

Answer: D

if BRCA is given most likely it would be the answer, but Tp53 is also associated with breast cancer. Most inherited cases of breast cancer are associated with two abnormal genes: BRCA1 (BRCA1 gene one) and BRCA2 (BRCA2 gene two). But also Tp53 is associated with breast cancer. TP53: The TP53 gene provides instructions to the body for making a protein that stops tumor growth. Inheriting an abnormal TP53 gene causes Li-Fraumeni syndrome, a disorder that causes people to develop soft tissue cancers at a young age. People with this rare syndrome have a higher-than-average-risk of breast cancer and several other cancers, including leukemia, brain tumors, and sarcomas (cancer of the bones or connective tissue). The cancer risk in women with a TP53 mutation is up to nearly 100%. In men, it is up to 73%. This gender difference is mostly due to the high breast cancer risk in women. Genetic testing: Genetic testing can be done to look for mutations in the BRCA1 and BRCA2 genes (or less commonly in other genes such as PTEN or TP53). References: <http://www.cancer.gov/types/breast/hp/breast-ovarian-genetics-pdq> <http://www.breastcancer.org/risk/factors/genetics> <https://www.cancer.org/cancer/risk-and-prevention/breast-cancer-risk-factors-you-cannot-change.html> <http://www.mayoclinic.org/tests-procedures/brca-gene-test/home/ovc-20239556> http://www.hopkinsmedicine.org/breast_center/breast_cancers._cancer.html

465. What is the best test in diagnosing cystic breast masses?

- A. Computed tomography
- B. Magnetic resonance imaging
- C. Mammograms
- D. Ultrasound

Answer: D

1. **Cystic breast lesions** are commonly observed at ultrasonography (US) performed for the evaluation of palpable or mammographically detected breast masses. Complex cysts contain cystic and solid components and are associated with a variety of benign, atypical, and malignant pathologic diagnoses.
2. **Breast MRI** is performed in patients with known cancer to evaluate for disease recurrence and to screen for breast cancer in high-risk patients (eg, BRCA carrier, first-degree relative of known BRCA carrier). MRI is expensive and unnecessary for breast cyst surveillance.
3. Annual **mammograms** and clinical breast examinations are recommended for women older than 40 years.
4. **Ultrasonographic** studies are most useful to evaluate cystic breast masses.
5. For solid masses, diagnostic biopsy techniques include fine-needle aspiration, core biopsy, and excisional biopsy.

466. Which of the following is the most common cause of primary amenorrhea?

- A. Androgen insensitivity syndrome
- B. Aromatase deficiency
- C. Gonadal dysgenesis
- D. Müllerian agenesis

Answer: C

Gonadal dysgenesis, including Turner syndrome, is the most common cause of primary amenorrhea.

467. How is classified pelvis of woman where an anteroposterior diameter of the inlet is greater than the transverse diameter?

- A. Android
- B. Anthropoid
- C. Gynecoid
- D. Platypelloid

Answer: B

The anthropoid pelvis is a pelvis where the anteroposterior (AP) diameter is higher than transverse diameter, resulting in an oval with large sacrosciatic notches and convergent side walls. The ischial spines are likely to be prominent. Gynecoid pelvis is classic female pelvis where the posterior sagittal diameter of the inlet is lower than the anterior sagittal diameter. Android pelvis is a pelvis where the posterior sagittal diameter at the inlet is much lower than the anterior sagittal diameter, limiting the use of the posterior space by the fetal head. Platypelloid pelvis is a pelvis where the anteroposterior (AP) diameter is lower than transverse diameter. Wide sacrosciatic notches are common. The pelves of most women do not fall into a pure type and are blends of one or more of the above types.

468. A 34-year-old woman comes for a regular Pap smear screening. Which of the following is the best place to take Pap smear?

- A. Endocervix
- B. Exocervix
- C. Transformation zone
- D. Vaginal vault

Answer: C

A Pap smear involves the painless removal of cells from the cervix. It is a screening test for cervical cancer. A Pap smear is performed by opening the vaginal canal with a speculum, then collecting cells at the outer opening of the cervix at the transformation zone (where the outer squamous cervical cells meet the inner glandular endocervical cells).

469. Which of the following is the most common factor responsible for a couple's infertility?

- A. Male factor
- B. Ovulatory factor
- C. Tubal and peritoneal factor
- D. Uterine factor

Answer: A

1. **Infertility** is usually defined as inability of a couple to conceive after 1 yr of unprotected intercourse.
2. The most common cause of infertility is male factors.
3. Infertility can be caused by the following:
4. Sperm disorders (35% of couples)
5. Ovulatory dysfunction or decreased ovarian reserve (about 20%)
6. Tubal dysfunction and pelvic lesions (about 30%)
7. Abnormal cervical mucus (5%)
8. Unidentified factors (about 10%)

470. A 42-year-old man comes to the physician with fever for the last 3 days. Since returning from a family trip to Sudan two weeks ago, he has been lethargic with abdominal pain, constant nausea and headache. His temperature is 38.5 C, blood pressure is 120/60 mm Hg, pulse is 119/min, and respirations are 19/min.

Which of the following is the most likely diagnosis?

- A. Giardiasis
- B. Hepatitis A
- C. Malaria
- D. Meningitis

Answer: C

Malaria is one of the most common causes of fever in the returning traveler.

1. Parasitic infection by *Plasmodium* spp. (*P. vivax*, *P. falciparum*, *P. ovale*, *P. malariae*) transmitted by *Anopheles* mosquito
2. **Clinical features:** chills, diaphoresis, headache, myalgias, fatigue, nausea, abdominal pain, vomiting, diarrhea; periodic fever at approximately 1- to 3-day intervals, splenomegaly; *P. falciparum* infection can include decreased consciousness, pulmonary edema, and renal insufficiency
3. **Labs:** polymerase chain reaction (PCR) for *Plasmodium* is highly sensitive
4. **Blood smear :** Giemsa stain shows *Plasmodium* spp.
5. **Treatment:** antimalarials (e.g., chloroquine, primaquine, quinine); atovaquone- proguanil or mefloquine used in chloroquine-resistant *P. falciparum*

471. You are following up on the results of routine testing of a 68-year-old G4P3 for her well-woman examination. Her physical examination was normal for a postmenopausal woman. Her Pap smear revealed parabasal cells, her mammogram was normal, lipid profile was normal, and the urinalysis shows hematuria. Which of the following is the most appropriate next step in the management of this patient?

- A. Colposcopy
- B. Endometrial biopsy
- C. Renal sonogram
- D. Urine culture

Answer: D

A urinalysis that is positive for blood should be followed up with a urine culture to detect an asymptomatic urinary tract infection before further workup is done or referral to a urologist is made. Parabasal cells on a Pap smear indicate lack of estrogen and are a normal finding in postmenopausal women and require no further evaluation.

472. A 67-year-old woman has frequency and dysuria. She has hypertension for which she takes a beta-blocker, but no other medical problems. She states that she is not sexually active. She does not smoke and drinks cranberry juice daily. Examination shows mild suprapubic tenderness and genital atrophy but is otherwise unremarkable. Urinalysis shows 50-100 leukocytes/hpf and 8 RBC/hpf. Which of the following is the most likely cause of the infection?

- A. Cardiac disease
- B. Cranberry juice ingestion
- C. Hypoestrogenism
- D. Nephrolithiasis
- E. Sexual intercourse

Answer: C

Hypoestrogenism is considered one of the major risk factors for developing uncomplicated urinary tract infections (UTIs) in postmenopausal women who do not take hormone replacement therapy.

473. Which of the following lab results is suggestive of menopause?

- A. High serum FSH
- B. Hyperglycemia
- C. Hypocalcemia
- D. Low serum LH

Answer: A

1. Natural menopause is defined as the permanent cessation of menstrual periods, determined retrospectively after a woman has experienced 12 months of amenorrhea without any other obvious pathological or physiological cause.
2. It occurs at a median age of **51.4 years in normal women**.
3. Menopause before age 40 is **considered to be abnormal** and is referred to as primary ovarian insufficiency (premature ovarian failure).
4. **Symptoms** of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, and night sweats.
5. **Hot flashes is the most common symptom during the menopausal transition.**
6. Menopause results in **increased LDL, decreased HDL, osteoporosis, and high risk of heart disease** due to lack of effect of estrogen on cholesterol balance, and also due to altered vascular endothelium reactivity due to decreased estrogen.
7. In menopause, the circulating estrogen decreases, resulting in decrease in the feedback inhibition on the hypothalamic-pituitary axis, resulting in **elevation of serum FSH and LH levels.**

474. Which of the following medications is associated with an increased risk of endometrial carcinoma?

- A. Bromocriptine
- B. Oral contraceptives
- C. Progesterone
- D. Tamoxifen

Answer: D

1. Endometrial cancer is usually endometrioid adenocarcinoma.
2. Typically, postmenopausal vaginal bleeding occurs.
3. Approximately 75% of women with endometrial cancer are postmenopausal. Thus, the most common symptom is postmenopausal bleeding.
4. Endometrial cancer is more common in developed countries where the diet is high in fat.
5. Diagnosis is by biopsy.
6. Staging is surgical. (Stage endometrial cancer surgically via laparotomy, laparoscopy, or a robotic-assisted surgery.)
7. Treatment requires hysterectomy, bilateral salpingo-oophorectomy, and, in high-risk patients, usually pelvic and para-aortic lymphadenectomy.
8. For advanced cancer, radiation, hormone, or cytotoxic therapy is usually indicated.

Major risk factors for endometrial cancer are:

1. Unopposed estrogen
2. Age > 50
3. Obesity
4. Diabetes

Other risk factors include

1. Tamoxifen use for > 5 yr
2. Previous pelvic radiation therapy
3. A personal or family history of breast or ovarian cancer
4. Family history of hereditary nonpolyposis colorectal cancer or possibly, among 1st-degree relatives, endometrial cancer
5. Hypertension

475. A 48-year-old female has been admitted to the gynecology department for pain in the lower right abdomen and low back pain, constipations. Bimanual examination findings: the uterus is immobile, the size of a 10-week pregnancy, has uneven surface. Aspirate from the uterine cavity contains atypical cells. What diagnosis can be made?

- A. Cervical cancer
- B. Chorionepithelioma
- C. Metrofibroma
- D. Uterine cancer

Answer: D

Uterine cancer, also known as womb cancer, is any type of cancer that emerges from the tissue of the uterus. It can refer to several types of cancer, with cervical cancer (arising from the lower portion of the uterus) being the most common type worldwide and the second most common cancer in women in developing countries. Endometrial cancer (or cancer of the inner lining of the uterus) is the second most common type, and fourth most common cancer in women from developed countries.

Risk factors depend on specific type, but obesity, older age, and human papillomavirus infection add the greatest risk of developing uterine cancer. Early on, there may be no symptoms, but irregular vaginal bleeding, pelvic pain or fullness may develop. If caught early, most types of uterine cancer can be cured using surgical or medical methods. When the cancer has extended beyond the uterine tissue, more advanced treatments including combinations of chemotherapy, radiation therapy, or surgery may be required.

476. A 62-year-old woman presents for annual examination. Her last spontaneous menstrual period was 9 years ago, and she has been reluctant to use postmenopausal hormone replacement because of a strong family history of breast cancer. She now complains of diminished interest in sexual activity. Which of the following is the most likely cause of her complaint?

- A. Alienation from her partner
- B. Decreased ovarian function
- C. Decreased vaginal length
- D. Untreatable sexual dysfunction

Answer: B

Sexuality continues despite aging. However, there are physiologic changes that must be recognized. Lack of estrogen from diminished ovarian function leads to decreased genital blood flow, decreased vaginal lubrication and atrophy of vaginal tissues. These can lead to discomfort with intercourse. Vaginal lubricants and estrogen replacement therapy (ERT) may help. Estrogen has been shown to improve lubrication, blood flow, and vaginal compliance. Sexual dysfunction can be physiologic (eg, from lowered libido). Because aging does not alter the capacity for orgasm or produce vaginismus, a further evaluation should be initiated if these symptoms persist after a postmenopausal woman after treatment is initiated.

477. A 33-year-old woman at 10 weeks gestation presents to the emergency room with vaginal bleeding and lower abdominal pain. Examination shows an effaced and dilated cervix with visible products of conception. Which of the following is the most likely diagnosis?

- A. Complete abortion
- B. Inevitable abortion
- C. Missed abortion
- D. Threatened abortion

Answer: B

Inevitable abortion presents as vaginal bleeding, lower abdominal cramps, and a dilated cervix. Ultrasound shows a ruptured/collapsed gestational sac with no fetal cardiac motion.

Types of Spontaneous Abortions	Type	Threatened	Missed	Inevitable	Incomplete	Complete
Uterine bleeding	Initial 20 wk of gestation	Present or with pain	Initial 20 wk	Initial 20 wk	Initial 20 wk	Cervical os Closed
Cervical os	Closed	Closed	Open	Open	Open or closed	Uterine contents expelled
Uterine contents expelled	None	None	None	Some	All	Diagnosis
Diagnosis	US detects viable fetus, cervix is closed	US detects nonviable intrauterine fetus	Viable fetus, cervix is dilated	Based on history of expelled products of conception	Based on history of expelled products of conception	

478. Which of the following is the drug of choice for treating hyperthyroidism during the first trimester?

- A. Levothyroxine

- B. Propranolol
- C. Propylthiouracil
- D. Radioactive iodine

Answer: C

Hyperthyroidism can result from excess production of TSH (rare) or abnormal thyroid stimulators.

1. Thyroid disorders may predate or develop during pregnancy.

Pregnancy does not change the symptoms of hypothyroidism and hyperthyroidism or the normal values and ranges of free serum thyroxine (T4) and thyroid-stimulating hormone (TSH).

2. Fetal effects vary with the disorder and the drugs used for treatment. But generally, untreated or inadequately treated hyperthyroidism can result in fetal growth restriction, preeclampsia, and stillbirth, and untreated hypothyroidism can cause intellectual deficits in offspring and miscarriage. The most common causes of maternal hypothyroidism are Hashimoto thyroiditis and treatment of Graves disease.

3. In the first trimester of pregnancy, the preferred drug to treat hyperthyroidism is propylthiouracil (PTU). Another antithyroid drug, methimazole, may cause birth defects if taken during early in pregnancy. Women may need to take methimazole in the first three months of pregnancy if they cannot tolerate PTU

4. Use of radioactive iodine is contraindicated in pregnancy.

5. Levothyroxine is used to treat thyroid hormone deficiency

479. A newborn's head is of dolichocephalic shape, that is front-to-back elongated. Examination of the occipital region revealed a labor tumor located in the middle of the pre fontanel and posterior fontanel. Which of the following is the presentation of fetus?

- A. Brow presentation
- B. Face presentation
- C. Shoulder presentation
- D. Vertex presentation

Answer: D

A cephalic presentation or head presentation or head-first presentation is a situation at childbirth where the fetus is in a longitudinal lie and the head enters the pelvis first; the most common form of cephalic presentation is the vertex presentation where the occiput is the leading part (the part that first enters the birth canal). All other presentations are abnormal (malpresentations) which are either more difficult to deliver or not deliverable by natural means.

480. You have a patient who is very health conscious and regularly ingests several vitamins in megadoses and herbal therapies on a daily basis. She recently became a strict vegetarian because she heard it is the best diet for the developing fetus. She is going to attempt getting pregnant and wants your advice regarding her diet and nutrition intake. Which of the following should you recommend during her pregnancy?

- A. Because herbal medications are natural, she may continue these dietary supplements during pregnancy.
- B. During pregnancy, her vegetarian diet does not provide sufficient amounts of vitamin B12 needed for the developing fetus.
- C. She should continue to take large doses of vitamin A supplements during pregnancy because dietary intake alone does not provide sufficient amounts needed during pregnancy.
- D. She should resume an omnivorous diet during pregnancy since animal sources provide the most desirable combination of proteins.

Answer: D

The use of herbal remedies is not recommended during pregnancy because such products are classified as dietary supplements and therefore are not FDA-regulated for purity, safety, and efficacy. In fact, the actual ingredients of many herbal substances are not even known. There is almost no data regarding the teratogenic potential of herbal medications in humans. Although a carefully planned vegetarian diet provides sufficient amino acids for pregnancy, it is not recommended that women assume a vegetarian diet during pregnancy. Animal sources of protein such as meat, poultry, fish, and eggs contain amino acids in the most desirable combinations. Strict vegetarians can give birth to infants who are low in vitamin B12, because vitamin B12 occurs naturally in adequate quantities in foods of animal origin as opposed to plant origin. Pregnant women do not need to take vitamin A supplements because adequate amounts can be obtained in the diet; in addition, a very high intake of vitamin A has been associated with the type of congenital malformations seen with oral Accutane use. Adequate vitamin C levels needed for pregnancy can be provided in a reasonable diet. No known fetal anomalies have been reported with vitamin C supplementation in pregnancy.

481. A 3-day-old infant, born at 32 weeks' gestation and weighing 1700 g (3 lb, 12 oz), has three episodes of apnea, each lasting 20 to 25 seconds and occurring after a feeding. During these episodes, the heart rate drops from 140 to 100 beats per minute, and the child remains motionless; between episodes, however, the child displays normal activity. Blood sugar is 50 mg/dL and serum calcium is normal. Which of the following is most likely true regarding the child's apneic periods?

- A. They are a part of periodic breathing.
- B. They are due to an immature respiratory center.
- C. They are manifestations of seizures.
- D. They are secondary to hypoglycemia.

Answer: B

Apneic episodes are characterized by an absence of respirations for more than 20 seconds and may be accompanied by bradycardia and cyanosis. A large number of conditions can cause central apnea. In an otherwise well premature infant, apnea is thought to be secondary to an incompletely developed respiratory center. Although seizures, hypoglycemia, septicemia, and pulmonary disease accompanied by hypoxia can lead to apnea, these causes are less likely in the infant described, given that no unusual movements occur during the apneic spells, the blood sugar level is more than 40 mg/dL, and the child appears well between episodes. Other less common explanations for central apnea include congenital central hypoventilation syndrome (formerly known as Ondine's curse), Arnold-Chiari malformations, and congenital infections. Periodic breathing, a common pattern of respiration in low-birth-weight babies, is characterized by recurrent breathing pauses of 3 to 10 seconds.

482. A 40-years-old female comes for preconception counseling. She has a history of fetal death after delivery with neural tube defect. Which of the following is the best recommendation for her?

- A. Amniocentesis in the second trimester
- B. Calcium and Ferrum supplementation
- C. Folic acid supplementation
- D. It could occur because of your age

Answer: C

Inadequate levels of folate (vitamin B9) and vitamin B12 during pregnancy have been found to lead to increased risk of neural tube defects. Although both are part of the same biopathway, folate deficiency is much more common and therefore more of a concern. Folate is required for the production and maintenance of new cells, for DNA synthesis and RNA synthesis. Folate is needed to carry one carbon groups for methylation and nucleic acid synthesis. It has been hypothesized that the early human embryo may be particularly vulnerable to folate deficiency due to differences of the functional enzymes in this pathway during embryogenesis combined with high demand for post translational methylations of the cytoskeleton in neural cells during neural tube closure.

483. A 47-year-old G3P3 complains of severe, progressive menstrual cramps and heavy menstrual bleeding. Pelvic examination demonstrates a tender, diffusely enlarged uterus with no adnexal tenderness. Results of endometrial biopsy are normal. Which of the following is the most likely diagnosis?

- A. Adenomyosis
- B. Endometriosis
- C. Endometritis
- D. Uterine sarcoma

Answer: A

Adenomyosis is a condition in which normal endometrial glands grow into the myometrium. Symptomatic disease primarily occurs in multiparous women over the age of 35 years, compared to endometriosis, in which onset is considerably younger. Patients with adenomyosis complain of dysmenorrhea and menorrhagia, and the classical examination findings include a tender, symmetrically enlarged uterus without adnexal tenderness. Although patients with endometriosis can have similar complaints, the physical examination of these patients more commonly reveals a fixed, retroverted uterus, adnexal tenderness and scarring, and tenderness along the uterosacral ligaments. Leiomyoma is the most common pelvic tumor, but the majority are asymptomatic and the uterus is irregular in shape. Patients with endometritis can present with abnormal bleeding, but endometrial biopsies show an inflammatory pattern. Uterine sarcoma is rare, and presents in older women with postmenopausal bleeding and nontender uterine enlargement.

484. An 18-year-old college student, who has recently become sexually active, is seen for severe primary dysmenorrhea. She has failed to obtain resolution with heating pads and mild analgesics. Although sexually active, she does not desire to get pregnant. Which of the following medications is most appropriate for this patient?

- A. Narcotic analgesics
- B. Oral contraceptives
- C. Oxycodone
- D. Prostaglandin inhibitors

Answer: B

Conservative measures for treating dysmenorrhea include heating pads, mild analgesics, sedatives or antispasmodic drugs, and outdoor exercise. In patients with dysmenorrhea, there is a significantly higher than normal concentration of prostaglandins in the endometrium and menstrual fluid. Prostaglandin synthase inhibitors such as indomethacin, naproxen, ibuprofen, and mefenamic acid are very effective in these patients. However, for patients with dysmenorrhea who are sexually active, oral contraceptives will provide needed protection from unwanted pregnancy and generally alleviate the dysmenorrhea. The OCPs minimize endometrial prostaglandin production during the concurrent administration of estrogen and progestin. Narcotics such as oxycodone should be reserved for patients who fail other medical therapies.

485. Which of the following is true regarding endometriosis?

- A. Defined as menstrual bleeding with abnormal duration, quantity, or schedule.
- B. Defined as prolonged or heavy menstruation, typically lasting longer than 7 days or exceeding 80 ml.
- C. Defined as the presence of endometrial glands and stroma outside of the uterine cavity.
- D. Defined as the presence of endometrial glands in the uterine muscle.

Answer: C

Endometriosis

1. Presence of endometrial tissue outside the uterus (e.g., ovaries, broad ligament); ectopic tissue follows same menstrual cycle as normal tissue
2. Retrograde menstruation, vascular/lymphatic spread of endometrial tissue from uterus to pelvic cavity, or iatrogenic spread of endometrial tissue (e.g., during caesarian section) are most plausible causes of condition.
3. Risk factors family history, infertility, nulliparity , low body mass index
4. Clinical features: dysmenorrhea, dyspareunia, painful bowel movements (dyschezia), pelvic pain, possible infertility; uterine or adnexal tenderness; palpable adhesions on uterus or ovaries
- 5. Laparoscopy is the gold standard for the diagnosis of endometriosis.**
6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

486. A woman was delivered to the gynecological office with a lack of consciousness and copious bloody secretions from the genital tract. Her blood pressure is pulse 90 / min, skin is pale, on the skin of the neck, arms, legs, and perineum are numerous hematomas. Which of the following is most likely the cause of this findings?

- A. Criminal abortion
- B. Genital trauma due to rape
- C. Hemorrhagic metropathy
- D. Postpartum hemorrhage

Answer: B

Many rapes do not result in serious injury. The first medical response to sexual assault is a complete assessment. This general assessment will prioritize the treatment of injuries by the emergency room staff. Medical personnel involved are trained to assess and treat those assaulted or follow protocols established to ensure privacy and best treatment practices. Informed consent is always required prior to treatment unless the person who was assaulted is unconscious, intoxicated or does not have the mental capacity to give consent. Priorities governing the physical exam are the treatment of serious life-threatening emergencies and then a general and complete assessment. Some physical injuries are readily apparent such as, bites, broken teeth, swelling, bruising, lacerations and scratches. In more violent cases, the victim may need to have gunshot wounds or stab wounds treated. The loss of consciousness is relevant to the medical history. If abrasions are found, immunization against tetanus is offered if 5 years have elapsed since the last immunization.

487. Which of the following is the most common cause of early abortion?

- A. Abnormality of placenta
- B. Fetal abnormality
- C. Maternal disease
- D. None of the above
- E. Viral disease

Answer: B

Miscarriage, also known as spontaneous abortion and pregnancy loss, is the natural death of an embryo or fetus before it is able to survive independently. About 80% of miscarriages occur in the first 12 weeks of pregnancy (the first trimester). The underlying cause in about half of cases involves chromosomal abnormalities of the fetus.

488. A 24-year-old woman presents to the physician with primary amenorrhea. Examination shows normal breast development and minimal axillary and pubic hair. Her external genitalia appears normal but the vagina is short and the cervix is not visible. Bimanual examination confirms the absence of a uterus and cervix and the ovaries are not palpable. Which of the following is the mode of inheriting the disease in the woman?

- A. Autosomal dominant
- B. Autosomal recessive
- C. Mitochondrial
- D. X-linked

Answer: D

Androgen Insensitivity Syndrome

1. It is X-linked disorder
2. It is due to defect in androgen receptor gene
3. All infants are 46, XY
4. All infants have testes and normal testosterone levels

Clinical presentation

1. Infant is phenotypically female at birth
2. Most infants raised as female and identify with female gender
3. External genitalia are female and the vagina ends in a blind pouch
4. No uterus
5. Fallopian tubes may or may not be present
6. Testes are usually intra-abdominal
7. At puberty breast develop normally
8. No menses
9. Sexual hair does not appear
10. Normal male adult height
11. Testosterone may be normal or high

489. A 78-year-old female comes with complaints leakage of urine when she sneezes, laughs, or coughs. She reports that these symptoms strictly occur during the day and never at night. She denies any subjective fever, dysuria, or hematuria. Pelvic examination is notable for a protrusion from the anterior vagina. Which of the following is the most likely diagnosis in this woman?

- A. Cystocele
- B. Enterocele
- C. Urethrocele
- D. Uterine prolapse

Answer: A

References: Toronto notes 2017, GY37, pg 520.

490. A 37-year-old pregnant woman comes to the emergency department because of abdominal pain. She is in her 26th week of pregnancy. This morning she began feeling painful contractions and noted vaginal bleeding. She is experiencing lower abdominal and pelvic pain between contractions as well. On exam, she is afebrile, blood pressure is 100/60 mmHg, heart rate is 102 bpm, and respiratory rate is 21 rpm. You note a gravid, hypertonic uterus on exam and moderate blood in the vaginal vault. Ultrasound reveals no abnormalities. Which of the following is the most serious complication for the baby?

- A. Fetal distress
- B. Low birthweight
- C. Preterm delivery
- D. Rh disease

Answer: A

Placental abruption is when the placenta separates early from the uterus, in other words separates before childbirth. It occurs most commonly around 25 weeks of pregnancy. Symptoms may include vaginal bleeding, lower abdominal pain, and dangerously low blood pressure. Complications for the mother can include disseminated intravascular coagulopathy and kidney failure. Complications for the baby can include fetal distress, low birthweight, preterm delivery, and stillbirth. The most serious complication for the baby is stillbirth and fetal distress.

491. Which of the following could stimulate breast milk production?

- A. Increase caloric intake
- B. Increase fluid intake
- C. Oxytocin
- D. Prolactin

Answer: D

Prolactin contributes to the increased growth and differentiation of the alveoli, and also influences differentiation of ductal structures. High levels of prolactin during pregnancy and breastfeeding also increase insulin resistance, increase growth factor levels (IGF-1) and modify lipid metabolism in preparation for breastfeeding. During lactation, prolactin is the main factor maintaining tight junctions of the ductal epithelium and regulating milk production through osmotic balance. Oxytocin contracts the smooth muscle of the uterus during and after birth, and during orgasm(s). After birth, oxytocin contracts the smooth muscle layer of band-like cells surrounding the alveoli to squeeze the newly produced milk into the duct system. Oxytocin is necessary for the milk ejection reflex not producing, or let-down, in response to suckling, to occur.

492. A 32-year-old woman presents for her yearly examination. She has been smoking one pack of cigarettes a day for the past 12 years. She wants to stop, and you make some recommendations to her. Which of the following is true regarding smoking cessation in women?

- A. Ninety percent of those who stop smoking relapse within 3 months.
- B. No matter how long one has been smoking, smoking cessation appears to improve the health of the lungs.
- C. Smokers do not benefit from repeated warnings from their doctor to stop smoking.
- D. Stopping cold turkey is the only way to successfully achieve smoking cessation.

Answer: B

Cigarette smoking has been linked to many pathologic conditions, including coronary heart disease, obstructive pulmonary disease, and lung cancer. There are studies that demonstrate that smoking cessation is of benefit to pulmonary health regardless of how long one has smoked. Doctors should repeatedly counsel their patients to stop smoking, and follow-up visits to achieve these goals are effective. Nicotine replacement therapy and transdermal nicotine patches have increased the effectiveness of smoking cessation programs. Sixty-five percent of people who stop smoking will relapse within 3 months.

493. A 32-year-old woman consults you for evaluation of an abnormal Pap smear done by a nurse practitioner at a family planning clinic. The Pap smear shows evidence of a high-grade squamous intraepithelial lesion (HGSIL). You perform colposcopy in the office. Your colposcopic impression is of acetowhite changes consistent with human papilloma virus infection (HPV). Your biopsies show chronic cervicitis but no evidence of dysplasia. The endocervical cureting is negative for dysplasia. Which of the following is the most appropriate next step in the management of this patient?

- A. Conization of the cervix
- B. Cryotherapy of the cervix
- C. Hysterectomy
- D. Laser ablation of the cervix

Answer: A

As discussed in question 316, one of the indications for a cone biopsy is a cervical biopsy or colposcopic impression which does not adequately explain the severity of the Pap smear. In about 10% of colposcopically directed cervical biopsies, there will be a substantial discrepancy between the Pap smear and the biopsy results (ie, the biopsy is normal but the Pap indicates severely abnormal cells). A conization of the cervix is required to rule out lesions higher in the endocervical canal. Merely repeating the Pap smear is incorrect, because you may be delaying treatment of a serious problem. Once cervical dysplasia has been established, cryotherapy and laser ablation are viable treatment options. However, these are destructive procedures (ie, no tissue is preserved for histological evaluation) which should not be performed until a diagnosis is made. A hysterectomy should not be performed in this patient without resolving the discrepancy between the Pap smear and the colposcopic findings.

494. A 38-year-old woman G4P4 is undergoing evaluation for fecal incontinence. She has no diagnosed medical problems. Which of the following is the most likely cause of this patient's condition?

- A. Diabetes
- B. Obstetric trauma
- C. Presenile dementia
- D. Rectal prolapse

Answer: B

The most common cause of fecal incontinence is obstetric trauma with inadequate repair. The rectal sphincter can be completely lacerated, but as long as the patient retains a functional puborectalis sling, a high degree of continence will be maintained. Generally, the patient is continent of formed stool but not of flatus. Other causes of fecal incontinence include senility, central nervous system (CNS) disease, rectal prolapse, diabetes, chronic diarrhea, and inflammatory bowel disease. While rectal prolapse, CNS disease, and senility are thus potential causes of this condition, they can be excluded by the history of the patient in the question. Approximately 20% of all diabetics complain of fecal incontinence. Therapy for fecal incontinence includes bulk-forming and antispasmodic agents, especially in those patients presenting with diarrhea. All caffeinated beverages should be stopped. Biofeedback and electrical stimulation of the rectal sphincter are other possible conservative treatments. Surgical repair of a defect is indicated when conservative measures fail, when the defect is large, or when symptoms warrant a more aggressive treatment approach.

495. Which of the following is a screening for cervical cancer?

- A. CA-125
- B. Colposcopy
- C. HPV screen
- D. Pap smear

Answer: D

The Papanicolaou test (abbreviated as Pap test, known earlier as Pap smear, cervical smear, or smear test) is a method of cervical screening used to detect potentially pre-cancerous and cancerous processes in the cervix (opening of the uterus or womb). Abnormal findings are often followed up by more sensitive diagnostic procedures, and, if warranted, interventions that aim to prevent progression to cervical cancer.

496. A healthy 30-year-old G2P1001 presents to the obstetrician's office at 34 weeks for a routine prenatal visit. She has a history of a cesarean section (low transverse) performed secondary to fetal malpresentation (footling breech). This pregnancy, the patient has had an uncomplicated prenatal course. She tells her physician that she would like to undergo a trial of labor during this pregnancy. However, the patient is interested in permanent sterilization and wonders if it would be better to undergo another scheduled cesarean section so she can have a bilateral tubal ligation performed at the same time. Which of the following statements is true and should be relayed to the patient?

- A. A history of a previous low transverse cesarean section is a contraindication to vaginal birth after cesarean section (VBAC).
- B. Her chance of having a successful VBAC is less than 60%.
- C. Her risk of uterine rupture with attempted VBAC after one prior low transverse cesarean section is 4% to 9%.
- D. If the patient desires a bilateral tubal ligation, it is safer for her to undergo a vaginal delivery followed by a postpartum tubal ligation rather than an elective repeat cesarean section with intraoperative bilateral tubal ligation.

Answer: D

The desire for sterilization is not an indication for an elective repeat cesarean section. The morbidity of repeat cesarean section is greater than that of vaginal birth with postpartum tubal ligation. The risk of uterine rupture in a woman who undergoes a trial of labor and has had one prior cesarean section is approximately 0.6%. With a history of two prior cesarean sections, the risk of uterine rupture is about 1.8%. The risk of uterine rupture in someone who has had a classical or T-shaped uterine incision is 4% to 6%. The success rate for a trial of labor is generally about 60% to 80%. Success rates are higher when the original cesarean section was performed for breech or a nonreassuring fetal heart rate tracing rather than dystocia. Induction of labor should not be performed without an obstetrical indication (eg, preeclampsia) at less than 39 weeks.

497. A 30-year-old woman presents to your office with the fear of developing ovarian cancer. Her 70-year-old grandmother recently died from ovarian cancer. You discuss with her the risk factors and prevention for ovarian cancer. Which of the following can decrease a woman's risk of ovarian cancer?

- A. Menopause after age 55
- B. Nonsteroidal anti-inflammatory drugs
- C. Nulliparity
- D. Use of combination oral contraceptive therapy

Answer: D

Oral contraceptive use, multiparity, breastfeeding, and early menopause are all factors believed to decrease the risk of developing ovarian cancer because they reduce the number of years a woman spends ovulating. The use of combination oral contraceptives decreases the risk of developing ovarian cancer by about 40%. Nulliparity, increasing age, and fertility drugs all increase ovulatory cycles and therefore are risk factors for developing ovarian cancer. In the general population, the risk of developing ovarian cancer is about 1% to 1.5%. This risk increases to about 5% if a woman has one first-degree relative with ovarian cancer and to about 7% if she has two or more first-degree relatives with ovarian cancer.

498. A woman comes with nausea, vomiting, constipation, and periumbilical pain that settles in the lower right quadrant. On physical exam she has tenderness and guarding in the lower right quadrant. Urine b-hCG is negative. Which of the following is most likely diagnosis in this woman?

- A. Acute appendicitis
- B. Cholecystitis
- C. Ectopic pregnancy
- D. Pyelonephritis

Answer: A

Appendicitis is inflammation of the appendix. Symptoms commonly include right lower abdominal pain, nausea, vomiting, and decreased appetite. Typical appendicitis includes several hours of generalized abdominal pain that begins in the region of the umbilicus with associated anorexia, nausea, or vomiting. The pain then "localizes" into the right lower quadrant where the tenderness increases in intensity.

499. Which of the following is most likely could be seen on ultrasound examination of the uterus as snowstorm appearance?

- A. Choriocarcinoma
- B. Complete hydatidiform mole
- C. Ectopic pregnancy
- D. Incomplete hydatidiform mole

Answer: B

Complete hydatidiform mole has a snowstorm appearance on ultrasound examination.

Investigations

- quantitative β -hCG levels (tumor marker) abnormally high for gestational age
- U/S findings
 - if complete: no fetus (classic "snow storm" due to swelling of villi)
 - if partial: molar degeneration of placenta \pm fetal anomalies, multiple echogenic regions corresponding to hydropic villi, and focal intrauterine hemorrhage
- CXR (may show metastatic lesions)
- features of molar pregnancies at high risk of developing persistent GTN post-evacuation
 - local uterine invasion as high as 31%
 - β -hCG $>100,000$ IU/L
 - excessive uterine size
 - prominent theca-lutein cysts

500. A 42-years-old woman comes preconception counseling. She has a history of fetal death and now is thinking about getting pregnant again. She worries that the same will happen again. Which of the following would be the best management for the woman?

- A. Amniocentesis at 20 weeks of pregnancy
- B. Higher risk because of her age
- C. Reassurance
- D. She has higher risk as the rest
- E. Ultrasound examination every week

Answer: C

Tight control of blood glucose prior to conception can substantially reduce the risk of congenital anomalies in the fetus. Preconceptional counseling is helpful if congenital anomalies or genetic abnormalities are found. Genetic screening and detailed ultrasound can evaluate future pregnancies. In some cases, such as cord occlusion, the patient can be assured that recurrence is very unlikely. Fetal death of unknown cause is a special problem. Because a large number of etiologies of fetal demise exist, a provider has difficulty determining risk of stillbirth for any particular pregnancy. Evidence-based models such as Active Management of Risk In Pregnancy At Term (AMOR-IPAT) are being created in an effort to better estimate this risk. Although recurrent fetal loss is uncommon, patients are naturally anxious. Most patients find increased fetal surveillance with the next pregnancy reassuring, even though such testing is not clearly beneficial. The ACOG recommends antepartum testing starting at 32-34 weeks' gestation in an otherwise healthy mother with history of stillbirth. Weekly biophysical profile or fetal heart rate testing can be combined with maternal kick counts in the third trimester. For patients who have experienced earlier loss, frequent ultrasound is reassuring. Optimal management of chronic medical conditions is important prior to the next pregnancy.

501. Which of the following conditions is associated with acanthosis nigricans?

- A. Dermatitis
- B. Hyperthyroidism
- C. Lymphoma
- D. Polycystic ovary syndrome

Answer: D

Acanthosis Nigricans 1. Acanthosis nigricans is a common condition characterized by velvety, hyperpigmented plaques on the skin.2. Intertriginous sites, such as the neck and axillae, are common sites for involvement3. Patients usually present with an asymptomatic area of darkening and thickening of the skin.4. Pruritus occasionally may be present. 5. It is associated with DM, Cushing's disease, polycystic ovarian syndrome, and obesity due to insulin resistance6. It could be malignant in paraneoplastic syndrome

502. In pregnant woman at 38 weeks of pregnancy, which was lying on the back, suddenly appeared shortness of breath, paleness of skin, cold sticky sweat. Her blood pressure is 90/60 mm Hg. Which of the following is the most likely diagnosis?

- A. Embolism with amniotic fluid
- B. Inferior vena cava syndrome
- C. Placental abruption
- D. Rupture of the uterus

Answer: B

Inferior vena cava syndrome (IVCS) is a result of obstruction of the inferior vena cava. It can be caused by invasion or compression by a pathological process or by thrombosis in the vein itself. It can also occur during pregnancy. Pregnancy can lead to problems with blood return due to high venous pressure in the lower limbs, failure of blood return to the heart, decreased cardiac output due to obstructions in inferior vena cava, sudden rise in venous pressure which can lead to placental separation, and a decrease in renal function. All of these issues can arise from lying in the supine position during late pregnancy which can cause compression of the inferior vena cava. Symptoms of late pregnancy inferior vena cava syndrome consist of intense pain in the right hand side, muscle twitching, drop of blood pressure, and fluid retention.

503. A 24-year-old mother presented with her child who is diagnosed with Down syndrome clinically. She is asking about the risk of Down syndrome in her next child. Which of the following is the best investigation to correctly answer her question?

- A. Do amniocentesis of her next pregnancy
- B. Do early ultrasound of her next pregnancy
- C. Karyotyping the mother and child
- D. Karyotyping this child

Answer: C

If a patient has had a trisomy 21 pregnancy in the past, the risk of recurrence in a subsequent pregnancy increases to approximately 1 percent above the baseline risk determined by maternal age. Diagnosis of a chromosome-21 translocation in the fetus or newborn is an indication for karyotype analysis of both parents. If both parents have normal karyotypes, the recurrence risk is 2 to 3 percent. If one parent carries a balanced translocation, the recurrence risk depends on the sex of the carrier parent and the specific chromosomes that are fused. The significance of a family history of Down syndrome depends on the karyotype of the affected person (proband). If the proband has trisomy 21, the likelihood of a trisomy 21 pregnancy is minimally increased for family members other than the parents. If the proband has a chromosome-21 translocation or if the karyotype is unknown, family members should be offered genetic counseling and karyotype analysis. In this case, the mother is not pregnant so we can do a screening, she has a child that was clinically diagnosed so he needs karyotyping to confirm DS, and she is asking about risk in next pregnancy so the parents need to do karyotyping also.

References: <http://www.aafp.org/afp/2000/0815/p825.html>

<http://americanpregnancy.org/birth-defects/down-syndrome/>

<https://patient.info/health/downs-syndrome-leaflet40-repeated> Q 115 PG 31

504. A 26-year-old pregnant woman at 40 weeks of gestation comes to the emergency department with complaints of shortness of breath, agitations for 6 hours and left lower leg edema. During the physical examination, her left leg is painful and swelling. Her vital signs are temperature 37.8°C, heart rate 125 bpm, blood pressure 100/70 mmHg, and saturation is 80% on room air. Venous ultrasound reveals a deep venous thrombosis. Which of the following is most likely the diagnosis of this woman?

- A. Acute respiratory distress syndrome
- B. Amniotic Emboli
- C. Disseminated intravascular coagulation
- D. Pulmonary Thromboembolism

Answer: D

This woman most likely has pulmonary thromboembolism based on the vital signs and deep venous thrombosis. Amniotic emboli are not associated with deep venous thrombosis.

505. A 32 years-old pregnant primipara woman at 34 weeks of pregnancy comes to the emergency room with complaints of uterine contractions. The uterine contractions are regular 5 contractions every 30 minutes which last 40-50 seconds. During the physical examination, the cervix is dilated to 5 cm. Fetal heart rate is 160 beats per minute. Estimated birth of the kid is 2650g. Which of the following is best next step in management for this patient?

- A. Continue the vaginal delivery of a baby
- B. Give betamethasone with tocolytics
- C. IV MgSO₄
- D. Immediate Cesarean section

Answer: A

This woman has normal labor. So the best next step is to continue the vaginal delivery of a baby. Give betamethasone with tocolytics is appropriate for pregnant women at 24-33 weeks of pregnancy. There is no fetal distress, so an immediate cesarean section is a wrong decision. IV MgSO₄ should be given only for women with preeclampsia or eclampsia.

506. Which of the following is an absolute contraindication for oral contraceptive?

- A. Active Liver disease
- B. Diabetes Mellitus
- C. Hyperlipidemia
- D. Migraine

Answer: A

Absolute Contraindications

1. Migraine Headache with aura
2. Breast Cancer (Hormone Dependent Cancer)
3. Venous Thrombosis history or risk
4. Vascular disease e.g CAD , CVA
5. Pregnancy
6. Active Liver disease e.g Viral Hepatitis , Cirrhosis
7. Undiagnosed Vaginal Bleeding
8. Tobacco Use (Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use.)
9. Thrombophilia
10. Uncontrolled Hypertension (SBP > 160 , DBP > 99)
11. Diabetes Mellitus with vascular complication

Relative Contraindications

1. Lactation (first 6 weeks to 6 months) : Increased Hypercoagulability in the postpartum period
2. Long leg cast or other prolonged immobility
3. Hyperlipidemia
4. Postpartum < 3 weeks : Hypercoagulable state
5. Migraine
6. Diabetes Mellitus
7. Controlled Hypertension

507. A pregnant woman at 34 weeks of pregnancy comes for a regular checkup. Her baby is the breech position. Which of the following is the best next step?

- A. Cesarean section at term
- B. Expectant management until 36 week
- C. External Cephalic Version
- D. Vaginal delivery at term

Answer: B

Expectant management until 36 week. You should not perform ECV before 36 weeks, because the baby can turn into cephalic spontaneously.

Reference: Master the board.

508. Treatment of gestational diabetes?

- A. Insulin
- B. glipizide
- C. metformin

Answer: A

This q should be in obstetric&gynecology section despite the answer is right

509. Which of the following is a treatment of community acquired pneumonia in pregnancy?

- A. Azithromycin with Amikacin
- B. Ceftriaxone with Azithromycin
- C. Ceftriazone with Tetracycline
- D. Vancomycin with linezolid

Answer: D

The best treatment for pregnant women with community acquired pneumonia is:

- 1)Community acquired pneumonia and no features of severe disease: antipneumococcal beta-lactam (ceftriaxone, cefotaxime, ampicillin-sulbactam) plus azithromycin
- 2) Allergic reactions to cephalosporins: clindamycin plus aztreonam, unless they have severe pneumonia.
- 3) Severe pneumonia and past reactions to cephalosporins: vancomycin plus azithromycin plus aztreonam.

<http://www.uptodate.com/contents/treatment-of-respiratory-infections-in-pregnant-women>

510. You are called to see a 37-year-old G4P4 for a fever to 38.7°C (101.8°F). She is postoperative day 3 after cesarean delivery for arrest of active-phase labor. She underwent a long induction for postdate pregnancy and had rupture of membranes for more than 18 hours. Her other vital signs include pulse 118 beats per minute, respiratory rate 16 breaths per minute, and blood pressure 120/80 mm Hg. She complains of some incisional and abdominal pain, but is otherwise fine. HEENT, lung, breast, and cardiac examinations are within normal limits. On abdominal examination she has

uterine fundal tenderness. Her incision has mild erythema around the staple edges and serous drainage along the left side. Pelvic examination reveals a tender uterus, but no adnexal masses. Which of the following is the most appropriate antibiotic to treat this patient with initially?

- A. Intravenous cefotetan
- B. Intravenous gentamicin
- C. Oral Bactrim
- D. Oral ciprofloxacin

Answer: A

The etiology of metritis, like that of all pelvic infections, is polymicrobial. Therefore, the antibiotic coverage selected should treat aerobic and anaerobic organisms. Common aerobes associated with metritis are staphylococci, streptococci, enterococci, E coli, Proteus, and Klebsiella. The anaerobic organisms associated with pelvic infections are most commonly Bacteroides, Peptococcus, Peptostreptococcus, and Clostridium. Generally, a broad-spectrum antibiotic, such as the cephalosporins cefotetan or cefoxitin, is administered intravenously. The antibiotic therapy is generally continued until the patient has been afebrile for at least 24 hours. Bactrim is a sulfa drug that is commonly given orally to treat uncomplicated urinary tract infections. Dicloxacillin is commonly used orally to treat women with mastitis because it has good coverage against S aureus, which is the most common organism responsible for this infection. Ciprofloxacin, a quinolone, is useful in the treatment of complicated urinary tract infections. This medication is not recommended for pregnant or lactating women because animal studies show an association of fluoroquinolones with irreversible arthropathy.

511. A G8P7 woman at 36 weeks of gestation comes for a medical consultation. She has a past medical history of postpartum hemorrhage in each previous delivery that required the blood transfusion. Which of the following would help to decrease the chance of postpartum hemorrhage to a minimum?

- A. give patient IV fluid before delivery to compensate for any hemorrhage that may happen
- B. perform CS at 38 weeks
- C. perform active management of 2nd stage of labor
- D. perform active management of 3rd stage of labor

Answer: D

Third stage of labor: from the delivery of fetus till the delivery of placenta
Active management of the third stage: (1) Uterotonic medication administered within one minute after delivery of baby after ruling out presence of another fetus; (2) controlled umbilical cord traction and counter traction to support the uterus until separation and delivery of the placenta; (3) uterine massage after delivery of the placenta
The best preventive strategy is active management of the third stage of labor
Reference :
<http://www.aafp.org/afp/2007/0315/p875.html>

512. The most appropriate treatment for herpes simplex virus (HSV):

- A. Acyclovir
- B. Fluconazole
- C. Lamivudine
- D. Ribavirin

Answer: A

1. Herpes simplex viruses (human herpesviruses types 1 and 2) commonly cause recurrent infection affecting the skin, mouth, lips, eyes, and genitals.
2. Transmission of HSV results from close contact with a person who is actively shedding virus. Viral shedding occurs from lesions but can occur even when lesions are not apparent.
3. Both types of herpes simplex virus (HSV), HSV-1 and HSV-2, can cause oral or genital infection. Most often, HSV-1 causes gingivostomatitis, herpes labialis, and herpes keratitis. HSV-2 usually causes genital lesions.
4. Common severe infections include encephalitis, meningitis, neonatal herpes, and, in immunocompromised patients, disseminated infection. Mucocutaneous infections cause clusters of small painful vesicles on an erythematous base.
5. Diagnosis is clinical; laboratory confirmation by culture, PCR, direct immunofluorescence, or serologic testing can be done.
6. Treatment is symptomatic; antiviral therapy with acyclovir, valacyclovir, or famciclovir is helpful for severe infections and, if begun early, for recurrent or primary infections.

513. A 23-year-old woman presents to your office complaining of a growth around her vaginal opening. Recently, the growth has been itching and bleeding. On physical examination she has a broad-based lesion measuring 2 cm in diameter on the posterior fourchette. Although there is no active bleeding, the lesion has some crusted blood along the right lateral margin. Which of the following is the best way to treat this patient?

- A. Injection of 5-fluorouracil into the lesions
- B. Local excision of the lesion
- C. Self-application of imiquimod to the lesions by the patient
- D. Weekly application of podophyllin in the office

Answer: B

The lesions are most likely condyloma acuminata, also known as venereal warts. Condyloma acuminata are squamous lesions caused by a human papillomavirus (HPV). The lesions reveal a treelike growth microscopically with a mantle that shows marked acanthosis and parakeratosis. Treatment options include local excision, cryosurgery, application of podophyllin or trichloroacetic acid, and laser therapy, although podophyllum is not recommended for extensive disease because of toxicity (peripheral neuropathy). For intractable condyloma of the vagina, 5-fluorouracil can be employed. Medical treatment with podophyllum, imiquimod, trichloroacetic acid, and 5-fluorouracil requires weeks or months of therapy to be effective. As this patient has a large, bleeding lesions, local excision is the best treatment option.

514. A 25-year-old G3P0 presents for preconception counseling. She has had three first-trimester pregnancy losses. As part of her evaluation for recurrent abortion, she had karyotyping done on herself and her husband. Her husband is 46, XY. She carries a balanced 13;13 translocation. What is the likelihood that her next baby will have an abnormal karyotype?

- A. <5%
- B. 10%
- C. 100%
- D. 50%

Answer: B

Carriers of balanced translocations of the same chromosome are phenotypically normal. However, in the process of gamete formation (either sperm or ova), the translocated chromosome cannot divide, and therefore the meiosis products end up with either two copies or no copies of the particular chromosome. In the former case, fertilization leads to trisomy of that chromosome. Many trisomies are lethal in utero. Trisomies of chromosomes 13, 18, and 21 lead to classic syndromes. In the latter case, a monosomy is produced, and all except for monosomy X (Turner syndrome) are lethal in utero.

515. A 21-year-old has a positive purified protein derivative (PPD) and is about to be treated with rifampin, isoniazid, and pyridoxine for tuberculosis. She can be reassured that her risk of which of the following is minimal?

- A. A flulike syndrome caused by rifampin
- B. A peripheral neuropathy caused by isoniazid
- C. Optic neuritis caused by isoniazid
- D. Ototoxicity as a side effect of streptomycin

Answer: C

Rifampin has occasionally been known to cause a flulike syndrome, abdominal pain, acute renal failure, and thrombocytopenia. It may also resemble hepatitis and can cause orange urine, sweat, and tears. INH has been associated with hepatitis, hypersensitivity reactions, and peripheral neuropathies. The neuropathy can be prevented by the administration of pyridoxine, especially in the pregnant patient, where pyridoxine requirements are increased. INH may also cause a rash, a fever, and a lupuslike syndrome with a positive ANA titer. Streptomycin has a potential for ototoxicity in both the mother and the fetus. The most commonly seen fetal side effects include minor vestibular impairment, auditory impairment, or both. Cases of severe and bilateral hearing loss and marked vestibular abnormalities have been reported with streptomycin use. Optic neuritis is a well-described side effect of ethambutol, although it is rare at the usual prescribed doses.

516. A woman has a severe preeclampsia. After the delivery, a doctor prescribed her magnesium sulfate. Which of the following is the most likely reason for prescribing this drug?

- A. Decrease her blood pressure
- B. Decrease her proteinuria
- C. Prevention of possible seizures
- D. Restore her Mg level

Answer: C

The risk of seizure is highest in the firsts 24 hours postpartum. MgSO₄ is crucial in firsts 12-24 hours after delivery in women with severe preeclampsia.

References: Toronto notes

517. A 59-year-old G4P4 presents to your office complaining of losing urine when she coughs, sneezes, or engages in certain types of strenuous physical activity. The problem has gotten increasingly worse over the past few years, to the point where the patient finds her activities of daily living compromised secondary to fear of embarrassment. She denies any other urinary symptoms such as urgency, frequency, or hematuria. In addition, she denies any problems with her bowel movements. Her prior surgeries include tonsillectomy and appendectomy. She has adult-onset diabetes and her blood sugars are well controlled with oral Metformin. The patient has no history of any gynecologic problems in the past. She has four children who were all delivered vaginally. Their weights ranged from 8 to 9 lb. Her last delivery was forceps assisted. She had a third-degree laceration with that birth. She is currently sexually active with her partner of 25 years. She has been menopausal for 4 years and has never taken any hormone replacement therapy. Her height is 5 ft 6 in, and she weighs 190 lb. Her blood pressure is 130/80 mm Hg. Based on the patient's history, which of the following is the most likely diagnosis?

- A. Detrusor instability
- B. Overflow incontinence
- C. Stress urinary incontinence
- D. Urinary tract infection

Answer: D

This patient's history is most consistent with a diagnosis of urinary stress incontinence. Genuine stress incontinence is a condition of immediate involuntary loss of urine when intravesical pressure exceeds the maximum urethral pressure in the absence of detrusor activity. Patients with this condition complain of bursts of urine loss with physical activity or a cough, laugh, or sneeze. The cause of stress incontinence is structural, attributed to a cystocele or urethrocele. In cases of overflow incontinence, patients experience a continuous loss of a small amount of urine and associated symptoms of fullness and pressure. Overflow incontinence is usually caused by obstruction or loss of neurologic control. Women with detrusor instability/dyssynergia have a loss of bladder inhibition and complain of urgency, frequency, and nocturia. Vesicovaginal fistulas are uncommon and usually occur as a complication of benign gynecologic procedures. Women with this complication usually present with a painless and continuous loss of urine from the vagina. Sometimes the uncontrolled loss of urine is not continuous but related to a change in position or posture. In the case of urinary tract infections, women usually present with symptoms of frequency, urgency, nocturia, dysuria, and hematuria.

518. A 28-year-old woman presents to the doctor with high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most likely diagnosis?

- A. Acute appendicitis
- B. Acute cystitis
- C. Acute pyelonephritis
- D. Gonorrhea
- E. Perinephric Abscess

Answer: C

Pyelonephritis

1. Infection of renal parenchyma most commonly caused by *Escherichia coli*; *Staphylococcus saprophyticus*, *Klebsiella*, and *Proteus* are less common pathogens; *Candida* is a potential cause in immunocompromised patients.
2. *Escherichia coli* accounts for more than 70% of cases.
3. Most commonly occurs as sequelae of ascending urinary tract infection (UTI).
4. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
5. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
6. Risk factors: urinary obstruction, immunocompromise, history of previous pyelonephritis, diabetes mellitus (DM), sexual intercourse >3 times/week, spermicide use
7. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
8. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
9. Complications: increased risk of preterm labor and low birth weight in pregnant women

519. A 22-year-old woman presents to your office for a well-woman examination. She has been sexually active with one male partner for the past year. She has not achieved orgasm with her partner. On further questioning, she has never achieved orgasm with other partners or with masturbation or the use of a vibrator. Which of the following statements is true regarding her condition?

- A. It is not associated with a history of rape.
- B. It is unrelated to partner behavior.
- C. It is unrelated to partner's sexual performance.
- D. The influence of religious beliefs is a major etiology.

Answer: D

Many factors can contribute to the development of primary orgasmic dysfunction in women. By definition, these women will not have been able to achieve orgasm through any means at any time in their lives; reasons for their dysfunction can include the influence of orthodox religious or rigid familial beliefs, dissatisfaction with their partner's behavioral or social traits, or past trauma such as rape. Sexual dysfunction, particularly premature ejaculation in a male partner, can reinforce a woman's orgasmic dysfunction.

520. A 29-year-old woman at 37 weeks is brought to the emergency room with sudden vaginal bleeding, severe uterine contractions and back pain. Her past medical history is significant for hypertension. Fetal heart tracing is nonreassuring. Examination shows uterine tenderness and hyperactivity.

Which of the following is the most likely diagnosis?

- A. Abruptio placenta
- B. Threatened abortion
- C. Uterine rupture
- D. Vasa praevia

Answer: A

Abruptio placentae

1. Premature separation of the placenta from uterine wall leading to significant maternal hemorrhage
2. Risk factors: HTN, prior abruptio placentae, trauma, tobacco use, cocaine use, PROM, multiple gestation, multiparity
3. Classic features of acute abruptio placenta include: Painful third trimester dark vaginal bleeding that does not spontaneously cease, abdominal pain, uterine contractions and uterine tenderness. The absence of blood on pelvic examination does not rule out this condition.
4. Ultrasound: inconsistently shows separation of placenta from uterus (normal ultrasound is most likely)
5. Treatment Bed rest in inpatient setting for very mild cases Delivery typically occurs rapidly secondary to uterine irritation, but caesarean section should be performed in cases of hemodynamic instability.
6. Transfusion is frequently required for significant hemorrhage.
7. Complications: DIC; severe hemorrhage that increases risk of maternal death.

521. After 40 minutes after the birth of a baby have started the hypotonic postpartum bleeding. Conservative methods of stopping bleeding have no effect, and the bleeding exceeds 1,200 mL and continued. Which of the following is the best next step for this woman?

- A. D&C
- B. Hysterectomy
- C. Injection of prostaglandins into the cervix
- D. Introduction of a tampon with ether in the posterior vault

Answer: B

A detailed stepwise management protocol has been introduced by the California Maternity Quality Care Collaborative. It describes 4 stages of obstetrical hemorrhage after childbirth and its application reduces maternal mortality.

Stage 0: normal - treated with fundal massage and oxytocin.

Stage 1: more than normal bleeding - establish large-bore intravenous access, assemble personnel, increase oxytocin, consider use of methergine, perform fundal massage, prepare 2 units of packed red blood cells.

Stage 2: bleeding continues - check coagulation status, assemble response team, move to operating room, place intrauterine balloon, administer additional uterotonics (misoprostol, carboprost tromethamine), consider: uterine artery embolization, dilatation and curettage, and laparotomy with uterine compression stitches or hysterectomy.

Stage 3: bleeding continues - activate massive transfusion protocol, mobilize additional personnel, recheck laboratory tests, perform laparotomy, consider hysterectomy.

522. Your patient is a healthy 28-year-old G2P1001 at 20 weeks gestational age. Two years ago, she delivered at vaginally term a healthy baby boy weighing 6 lb 8 oz. This pregnancy, she had a prepregnancy weight of 130 lb. She is 5 ft 4 in tall. She now weighs 140 lb and is extremely nervous that she is gaining too much weight. She is worried that the baby will be too big. What is the best counseling for this patient regarding her weight gain?

- A. During the pregnancy, she should consume an additional 300 kcal/day versus her pre-pregnancy diet, and her weight gain so far is appropriate for her gestational age.
- B. Her weight gain is excessive, and she needs to be referred for nutritional counseling to slow down her rate of weight gain.

- C. Her weight gain is excessive, and you recommend that she undergo early glucose challenge testing to evaluate for gestational diabetes.
- D. She is gaining weight at a less than normal rate, and, with her history of a small-for-gestational-age baby, she should supplement her diet with extra calories.

Answer: A

The American College of Obstetrics and Gynecology supports the recommendation made by the Institute of Medicine in 1990 that women gain between 25 and 35 lb during pregnancy if they have a normal pre-pregnancy body mass index (BMI). Obese women with a BMI greater than 29 should not gain more than 15 lb, and women with a BMI less than 19.8 can gain up to 40 lb. A daily increase in calories of 300 kcal is recommended. In the second and third trimesters, normal weight gain is about 1 lb/week. Low weight gain during pregnancy has been associated with infants that are small for gestational age; excessive weight gain has been associated with large-for-gestational-age infants and an increased risk for cesarean section. In this case, the patient had a previous delivery of an appropriate-size baby. Her weight gain this pregnancy has been appropriate, and she needs to continue to consume an additional 300 kcal daily to continue to gain appropriate weight.

523. A 30-year-old G2P0 at 39 weeks is admitted in active labor with spontaneous rupture of membranes occurring 2 hours prior to admission. The patient noted clear fluid at the time. On examination, her cervix is 4 cm dilated and completely effaced. The fetal head is at 0 station and the fetal heart rate tracing is reactive. Two hours later on repeat examination her cervix is 5 cm dilated and the fetal head is at +1 station. Early decelerations are noted on the fetal heart rate tracing. Which of the following is the best next step in her labor management?

- A. Administer terbutaline
- B. Initiate Pitocin augmentation
- C. Initiate amnioinfusion
- D. Perform cesarean delivery for arrest of descent

Answer: B

The patient has a protracted active phase of labor (cervical dilation < 1.2 cm/h). Either expectant management or Pitocin augmentation may be used for treatment. There is no arrest of descent at this time, and cesarean delivery is not warranted. Amnioinfusion is not indicated for early decelerations. It may decrease the need for cesarean delivery in patients with variable or prolonged decelerations. Terbutaline would cause uterine relaxation and is not indicated.

524. A woman presents with complaints of whitish cheese like vaginal discharge. There is no foul smell of vaginal discharge. Which of the following is the most likely organism?

- A. Candida
- B. Chlamydia
- C. Syphilis
- D. Trichomonas

Answer: A

Candidiasis is a fungal infection due to any type of Candida (a type of yeast). When it affects the mouth, it is commonly called thrush. Signs and symptoms include white patches on the tongue or other areas of the mouth and throat. Other symptoms may include soreness and problems swallowing. When it affects the vagina, it is commonly called a yeast infection. Signs and symptoms include genital itching, burning, and sometimes a white "cottage cheese-like" discharge from the vagina.

Ref: <http://emedicine.medscape.com/article/2012015-overview#a1>

525. A healthy oral cavity has a microbial population consisting of gram-positive streptococci and diphtheroids. Anaerobic rods and spirochetes are present in low numbers and may be opportunistic for disease. Which of the following organisms also normally inhabits the healthy human oral cavity?

- A. Mycoplasma fermentans
- B. Mycoplasma hominis
- C. Mycoplasma orale
- D. Mycoplasma pneumoniae

E. *Ureaplasma urealyticum*

Answer: C

Members of the mycoplasma group that are pathogenic for humans include *M. pneumoniae* and *U. urealyticum*. *Mycoplasma pneumoniae* is best known as the causative agent of PAP, which may be confused clinically with influenza or legionellosis. It also is associated with arthritis, pericarditis, aseptic meningitis, and the Guillain-Barré syndrome. *M. pneumoniae* can be cultivated on special media and identified by immunofluorescence staining and “fried egg” colonies on agar. *Ureaplasma urealyticum* (once called tiny, or T. strain) has been implicated in cases of NGU. As the name implies, this organism is able to split urea, a fact of diagnostic significance. *Ureaplasma urealyticum* is part of the normal flora of the genitourinary tract, particularly in women. Both *M. orale* and *M. salivarium* are inhabitants of the normal human oral cavity. These species are commensals and do not play a role in disease. The only other species of *Mycoplasma* associated with human disease is *M. hominis*. A normal inhabitant of the genital tract of women, this organism has been demonstrated to produce an acute respiratory illness that is associated with sore throat and tonsillar exudate, but not with fever. *M. hominis* can cause disease outside the urinary tract in immunosuppressed patients or immunocompetent patients after trauma of the genitourinary tract. Other opportunistic infections known to be caused by *M. hominis* include wound infections, osteomyelitis, brain abscess, pneumonia, and peritonitis. It has been associated with neonatal pneumonia and sepsis. *Mycoplasma fermentans* is an animal isolate.

526. In a 44-years old female after an examination with Pap smear was found ASCUS (atypical squamous cells of undetermined significance) and positive HPV. Which of the following is the best next step for this woman?

- A. Colposcopy with biopsy
- B. Repeat HPV test
- C. Repeat Pap and co-test in 5 years
- D. Rescreen in 5 years.

Answer: A

Explanation Summary of Cervical Cancer Screening Results and Management for Women 30 Years of Age or Older

- 1) Normal Pap and Negative HPV - Rescreen in 5 years.
- 2) Normal Pap and Positive HPV - Repeat co-test in one year or do HPV DNA typing now
- 3) ASCUS Pap, No HPV Test - Repeat cytology in one year or do HPV test now
- 4) ASCUS Pap and Negative HPV or LSIL Pap and Negative HPV - Repeat Pap and co-test at interval as per ASCCP guidelines.
- 5) ASCUS Pap and Positive HPV or LSIL Pap and Positive or Unknown HPV or ASC-H Pap or HSIL Pap - Colposcopy and/or referral to gynecologist.

<https://www.cdc.gov/cancer/knowledge/provider-education/cervical/followup.htm>

527. A 32-year-old G1P0 reports to your office for a routine OB visit at 14 weeks gestational age. Labs drawn at her first prenatal visit 4 weeks ago reveal a platelet count of 60,000, a normal PT, PTT and bleeding time. All her other labs were within normal limits. During the present visit, the patient has a blood pressure of 120/70 mm Hg. Her urine dip reveals the presence of trace protein. The patient denies any complaints. The only medication she is currently taking is a prenatal vitamin. On taking a more in-depth history you learn that, prior to pregnancy, your patient had a history of occasional nose and gum bleeds, but no serious bleeding episodes. She has considered herself to be a person who just bruises easily. Which of the following is the most likely diagnosis?

- A. Alloimmune thrombocytopenia
- B. Gestational thrombocytopenia
- C. HELLP syndrome
- D. Idiopathic thrombocytopenic purpura

Answer: D

Immune thrombocytopenic purpura (ITP) typically occurs in the second or third decade of life and is more common in women than in men. The diagnosis of ITP is one of exclusion, because there are no pathognomonic signs, symptoms, or diagnostic tests. Traditionally, ITP is associated with a persistent platelet count of less than 100,000 in the absence of splenomegaly. Most women have a history of easy bruising and nose and gum bleeds that precede pregnancy. If the platelet count is maintained above 20,000, hemorrhagic episodes rarely occur. In cases of ITP, the patient produces IgG antiplatelet antibodies that increase platelet consumption in the spleen and in other sites. Gestational thrombocytopenia occurs in up to 8% of pregnancies. Affected women are usually asymptomatic, have no prior history of bleeding, and usually maintain platelet counts above 70,000. In gestational thrombocytopenia, platelet counts usually return to normal in about 3 months. The cause of gestational thrombocytopenia has not been clearly elucidated. HELLP syndrome of severe preeclampsia is associated with thrombocytopenia, but this condition occurs in the third trimester and is associated with hypertension. In neonatal alloimmune thrombocytopenia, there is a maternal alloimmunization to fetal platelet antigens. The mother is healthy and has a normal platelet count, but produces antibodies that cross the placenta and destroy fetal/neonatal platelets.

528. A 51-year-old woman presents to your office with heavy bleeding. She is a nonsmoker. Which of the following is the treatment of choice for dysfunctional uterine bleeding?

- A. Dilation and curettage
- B. Hysterectomy
- C. Oral contraceptive pill
- D. Reassurance

Answer: C

1. Dysfunctional uterine bleeding (DUB) refers to heavy vaginal bleeding that occurs in the absence of structural or organic disease. 2. After menarche and before menopause it is considered physiologic. 3. DUB is the most common cause of abnormal uterine bleeding. 4. Due to its benign nature, it is a diagnosis of exclusion. 5. The most common cause of dysfunctional uterine bleeding (DUB) in adolescent women is anovulation. 6. DUB is treated with cyclic progestin therapy from day 14 – 25 of each cycle or by daily combination OCPs. 7. Cases not controlled by hormonal therapy may undergo endometrial ablation or hysterectomy. 8. In cases of uncontrolled bleeding, IV estrogen is the drug of choice for, to suppress the bleeding, and to ensure cardiovascular stability.

529. A 25-year-old G0 presents to your office for preconception counseling. She is a long-distance runner and wants to continue to train should she conceive. She wants to know whether there are any potential adverse effects to a developing fetus if she were to pursue a program of regular exercise during her pregnancy. You advise her of which of the following true statements regarding exercise and pregnancy?

- A. During pregnancy, she should stop exercising because such activity is commonly associated with intrauterine growth retardation in the fetus.
- B. She may continue to exercise throughout pregnancy as long as her heart rate does not exceed 160.
- C. She should only perform non-weight-bearing exercises because they minimize the risks of maternal and
- D. She should perform exercises in the supine position to maximize venous return and cardiac output.

Answer: C

Women with uncomplicated pregnancies can continue to exercise during pregnancy if they had previously been accustomed to exercising prior to becoming pregnant. Studies indicate that well-conditioned women who maintain an antepartum exercise program consisting of aerobics or running have improved pregnancy outcomes in terms of shorter active labors, fewer cesarean section deliveries, less meconium-stained amniotic fluid, and less fetal distress in labor. On average, women who run regularly during pregnancy have babies that weigh 310 g less than women who do not exercise during pregnancy. Even though birth weight is reduced in exercising pregnant women, there is not an increased incidence of intrauterine growth retardation. The American College of Obstetricians and Gynecologists recommends that women avoid exercising while in the supine position to avoid a decrease in venous return to the heart, which results in decreased cardiac output. In addition, women should modify their exercise based on symptoms. There is not set pulse above which exercise is to be avoided; rather, women should decrease exercise intensity when experiencing symptoms of fatigue. Non-weight-bearing exercises will minimize the risk of injury. Since the physiologic changes associated with pregnancy will persist from 4 to 6 weeks following delivery, women should not resume the intensity of pre-pregnancy exercise regimens immediately following delivery.

530. Which of the following is used to follow the effectiveness of ovarian cancer treatment?

- A. Alpha fetoprotein (AFP)
- B. Beta hCG
- C. CA 125
- D. Cytokeratin

Answer: C

CA 125 is the only tumor marker recommended for clinical use in the diagnosis and management of ovarian cancer.

AFP is one of several tumor markers. Tumor markers are molecules in the blood that are higher when a person has certain cancers. AFP is found mainly in liver cancer and nonseminomatous germ cell tumors, which are rare.

531. A 35-year-old G3P2 at 12 weeks gestation comes to the doctor with cramping pain and vaginal bleeding. A pelvic examination demonstrates a closed cervix. An ultrasound has performed the fetus is in the uterus and is normal for his gestational age. Which of the following best describes the most likely diagnosis?

- A. Incomplete abortion
- B. Inevitable abortion
- C. Missed abortion
- D. Threatened abortion

Answer: D

At less than 20 weeks gestation with minimal vaginal bleeding and a closed cervix in the setting of a normal fetal ultrasound is consistent with a threatened abortion. A missed abortion consists of an abnormal ultrasound suggesting fetal demise in the absence of vaginal bleeding or cervical dilation. An inevitable abortion presents with vaginal bleeding and cervical dilation, but no loss of products of conception. An abnormal ultrasound is also seen. An incomplete abortion presents with vaginal bleeding, cervical dilation, and loss of some but not all products of conception. An abnormal ultrasound is also expected. A completed abortion presents with vaginal bleeding, cervical dilation, and total loss of products of conception. An abnormal ultrasound is also seen.

532. Which of the following is a treatment option for vulvar cancer which have not spread beyond the vulva?

- A. Chemotherapy
- B. Laser therapy
- C. Radiation
- D. Surgery

Answer: D

Surgery is a mainstay of therapy depending on anatomical staging and is usually reserved for cancers that have not spread beyond the vulva. Radiation therapy may be used in more advanced vulvar cancer cases when disease has spread to the lymph nodes and/or pelvis.

Chemotherapy is not usually used as primary treatment but may be used in advanced cases with spread to the bones, liver or lungs. It may also be given at a lower dose together with radiation.

When the lesion involves the vaginal vault, surgical excision is indicated to treat the VAIN and to exclude invasive cancer.

For multifocal disease, laser therapy or topical 5-fluorouracil may be used.

Extensive disease may require total vaginectomy and creation of a neovagina using a split-thickness skin graft

Reference: Hacker & Mooses Essentials of Obstetrics and Gynecology 5th.pdf

533. Your patient had an ultrasound examination today at 39 weeks gestation for size less than dates. The ultrasound showed oligohydramnios with an amniotic fluid index of 1.5 centimeters. The patient's cervix is unfavorable. Which of the following is the best next step in the management of this patient?

- A. Admit her to the hospital for cervical ripening then induction of labor.
- B. Admit her to the hospital for cesarean delivery.
- C. Perform stripping of the fetal membranes and perform a BPP in 2 days.
- D. Write her a prescription for misoprostol to take at home orally every 4 hours until she goes into labor.

Answer: A

Patients with oligohydramnios at term should be delivered. If there is no contraindication to vaginal delivery, the patient should be induced. The patient with an unfavorable cervix may undergo cervical ripening after assessment of fetal well-being. If fetal testing is reassuring, the unfavorable cervix can be ripened with a variety of mechanical and pharmacologic agents prior to initiating Pitocin. Pharmacologic agents include prostaglandin E₂ preparations available as a vaginal/cervical gel (Prepidil) or vaginal insert (Cervidil). Misoprostol, a synthetic PGE₁ analogue, has been used off-label for pre-induction cervical ripening and labor induction. It can be administered via the oral or vaginal route. Mechanical ripening of the cervix can be achieved with laminaria, which is a hygroscopic dilator that is placed in the cervical canal and absorbs water from the surrounding cervical tissue. Pitocin is not considered a cervical ripening agent but a labor-inducing agent. In patients with oligohydramnios, cervical ripening should be performed in the hospital under continuous fetal monitoring.

534. You are making rounds on a 29-year-old G1P1 who underwent an uncomplicated vaginal delivery at term on the previous day. The patient is still very confused about whether she wants to breast-feed. She is a very busy lawyer and is planning on going back to work in 4 weeks, and she does not think that she has the time and dedication that breast-feeding requires. She asks you what you think is best for her to do. Which of the following is an accurate statement regarding breast-feeding?

- A. Breast-feeding decreases the time to return of normal menstrual cycles.
- B. Breast-feeding is a poor source of nutrients for required infant growth.
- C. Breast-feeding is associated with a decreased incidence of sudden infant death syndrome.
- D. Breast-feeding is associated with an increased incidence of childhood obesity.

Answer: C

According to the American Academy of Pediatrics, some of the benefits of nursing include a decrease in infant diarrhea, urinary tract infections, ear infections, and death from sudden infant death syndrome. Human milk is ideal food for neonates. It provides species- and age-specific nutrients for the baby. It has immunological factors and antibacterial properties and contains factors that act as biological signals to promote cellular growth. Breast-feeding can delay the resumption of ovulation and menses.

535. Which of the following is true about dizygotic twins?

- A. 1 placenta 1 sac same sex
- B. 1 placenta 1 sac same sex
- C. 2 placenta 1 sac regardless sex
- D. 2 placenta and 2 separate sacs regardless sex

Answer: D

All dizygotic twins are dichorionic, which means they have two separate sacs and two placenta.

536. A mother wishes to breast-feed her newborn infant, but is worried about medical conditions that would prohibit her from doing so. You counsel her that of her listed conditions, which of the following is a contraindication to breast-feeding?

- A. Cracked and bleeding nipples
- B. HIV infection
- C. Mastitis
- D. Upper respiratory tract infection

Answer: D

There are few contraindications to breast-feeding. Active pulmonary tuberculosis and HIV are two examples of infectious contraindications in developed countries, as well as malaria, typhoid fever, and septicemia. In underdeveloped countries, the risk of infectious diarrhea due to use of contaminated water to mix formula or the unavailability of formula can preclude this recommendation. All medications taken by the mother will be secreted in breast milk, but usually not in amounts significant enough to affect the infant. Mothers taking antineoplastic agents should not breast-feed. Mothers with mastitis can continue to breast-feed; frequent feedings may help the condition by preventing engorgement. Mothers with mild viral illness may also continue to breastfeed. Cracked or bleeding nipples may make breast-feeding uncomfortable, but are not contraindications. Inverted nipples usually can be remedied, and only rarely prohibit breast-feeding.

537. A healthy 59-year-old woman with no history of urinary incontinence undergoes vaginal hysterectomy and anteroposterior repair for uterine prolapse, a large cystocele, and a rectocele. Two weeks postoperatively, she presents to your office with a new complaint of intermittent leakage of urine. What is the most likely cause of this complaint following her surgery?

- A. Overflow incontinence
- B. Rectovaginal fistula
- C. Stress urinary incontinence
- D. Urethral diverticulum

Answer: C

Many patients who have uterine prolapse or a large protuberant cystocele will be continent because of urethral obstruction caused by the cystocele or prolapse. In fact, at times these patients may need to reduce the prolapse in order to void. Following surgical repair, if the urethrovesical junction is not properly elevated, stress urinary incontinence may result. This incontinence may present within the first few days to weeks following surgery. Rectovaginal fistula would present with passage of stool from vagina. Vesicovaginal fistula would present with continuous leakage of urine from the vagina. Detrusor instability would have been present prior to her surgery.

538. Which of the following is not a normal physiological change in pregnancy?

- A. GI motility decreases
- B. Gastroesophageal reflux
- C. HCl production decreases
- D. Stomach pH decreases

Answer: B

Cardiac output (CO) increases 30 to 50%, beginning by 6 wk gestation and peaking between 16 and 28 wk (usually at about 24 wk). It remains near peak levels until after 30 wk. Total blood volume increases proportionally with CO, but the increase in plasma volume is greater (close to 50%, usually by about 1600 mL for a total of 5200 mL) than that in RBC mass (about 25%); thus, Hb is lowered by dilution, from about 13.3 to 12.1 g/dL. This dilutional anemia decreases blood viscosity. With twins, total maternal blood volume increases more (closer to 60%). WBC count increases slightly to 9,000 to 12,000/ μ L. Marked leukocytosis ($\geq 20,000/\mu$ L) occurs during labor and the first few days postpartum. Changes in renal function roughly parallel those in cardiac function. GFR increases 30 to 50%, peaks between 16 and 24 wk gestation, and remains at that level until nearly term, when it may decrease slightly because uterine pressure on the vena cava often causes venous stasis in the lower extremities. Renal plasma flow increases in proportion to GFR. As a result, BUN decreases, usually to < 10 mg/dL (< 3.6 mmol urea/L), and creatinine levels decrease proportionally to 0.5 to 0.7 mg/dL (44 to 62 μ mol/L). Lung function changes partly because progesterone increases and partly because the enlarging uterus interferes with lung expansion. Progesterone signals the brain to lower CO₂ levels. To lower CO₂ levels, tidal and minute volume and respiratory rate increase, thus increasing plasma pH. O₂ consumption increases by about 20% to meet the increased metabolic needs of the fetus, placenta, and several maternal organs. Inspiratory and expiratory reserve, residual volume and capacity, and plasma Pco₂ decrease. As pregnancy progresses, pressure from the enlarging uterus on the rectum and lower portion of the colon may cause constipation. GI motility decreases because elevated progesterone levels relax smooth muscle. Heartburn and belching are common, possibly resulting from delayed gastric emptying and gastroesophageal reflux due to relaxation of the lower esophageal sphincter and diaphragmatic hiatus. HCl production decreases. Increased levels of estrogens, progesterone, and MSH contribute to pigmentary changes, although exact pathogenesis is unknown. These changes include Melasma (mask of pregnancy), which is a blotchy, brownish pigment over the forehead and malar eminences Darkening of the mammary areolae, axilla, and genitals Linea nigra, a dark line that appears down the midabdomen Melasma due to pregnancy usually regresses within a year. Incidence of spider angiomas, usually only above the waist, and of thin-walled, dilated capillaries, especially in the lower legs, increases.

539. An infant who appears to be of normal size is noted to be lethargic and somewhat limp on the warmer after birth. The mother is 28 years old, and this is her fourth delivery. The pregnancy was uncomplicated, with normal fetal monitoring prior to delivery. Labor was rapid, with local anesthesia and intravenous meperidine (Demerol) administered for maternal pain control. Which of the following therapeutic maneuvers is likely to improve this infant's condition most rapidly?

- A. Administration of naloxone (Narcan)
- B. Administration of vitamin K
- C. Intravenous infusion of 10% dextrose in water
- D. Measurement of electrolytes and magnesium levels

Answer: A

In the description provided, the most likely cause of the neonatal depression is maternal analgesic narcotic drug administration. While controlling the pain of the delivery in the mother, use of narcotics can result in depression of the newborn via crossing of the placenta. The appropriate first step in the management of this infant (after managing the ABCs of airway, breathing, and circulation) is the administration of naloxone, 0.1 mg/kg, IM, IV, or endotracheal. The other possibilities are unlikely, given the clinical information provided.

540. You are in the emergency department evaluating a 42-year-old woman who was shot by her husband during an argument. You recognize her because you have treated her numerous times for various complaints. Which of the following is a common characteristic of intimate partner violence?

- A. The events are isolated and not associated with other abuses.
- B. The head and neck are rare areas of injury.
- C. Victims are reluctant to reveal abuse when their physicians ask them about it.
- D. Victims repeatedly visit clinics and emergency departments for different complaints.

Answer: D

About 25% of women treated for injuries in emergency departments are victims of domestic violence. Such women usually make repeated visits to clinics and emergency rooms with a variety of somatic complaints. Physicians treating these patients correctly make the diagnosis in only 3% of the cases. Most women report that they would be willing to divulge their domestic abuse to a physician if the physician were to ask. Partner abuse is usually seen in conjunction with other abuses such as elderly abuse and child abuse. Physical injury in cases of domestic violence usually involves the following areas: head and neck, trunk, skin, and extremities.

541. What is Adenomyosis?

- A. Presence of endometrial tissue and gland in Cervix
- B. Presence of endometrial tissue and gland in Uterine Ligament
- C. Presence of endometrial tissue and gland in Uterine Muscle
- D. Presence of endometrial tissue and gland out Uterus

Answer: C

It occurs when endometrial tissue, which normally lines the uterus, exists within and grows into the muscular wall of the uterus.

542. A 15 years old girl is presented by her mother with complaints of pain during menses only. Which of the following is involved in her symptoms development?

- A. Hypogastric nerves
- B. Lumbar splanchnic nerves
- C. Myenteric plexus
- D. Uterine nerves

Answer: D

Dysmenorrhea is due to prolonged uterine contractions and decreased blood flow to myometrium. The nerves which transmit a painful signal are uterine nerves. <https://www.uptodate.com/contents/painful-menstrual-periods-dysmenorrhea-beyond-the-basics>

543. Initial examination of a full-term infant weighing less than 2500 g (5 lb, 8 oz) shows edema over the dorsum of her hands and feet. Which of the following additional findings would support a diagnosis of Turner syndrome?

- A. A liver palpable to 2 cm below the costal margin
- B. A transient, longitudinal division of the body into a red half and a pale half
- C. Redundant skin folds at the nape of the neck
- D. Tremulous movements and ankle clonus

Answer: C

Turner syndrome is a genetic disorder; the 45XO karyotype is the most common. At birth, affected infants have low weight, short stature, edema over the dorsum of the hands and feet, and loose skin folds at the nape of the neck. Some other findings with this syndrome include sexual infantilism, streak gonads, typical faces, shield chest, low hairline, coarctation of the aorta, hypertension, bicuspid aortic valve, high palate, and horseshoe kidney. Coarse, tremulous movements accompanied by ankle clonus; vascular instability as evidenced, for example, by a harlequin color change (a transient, longitudinal division of a body into red and pale halves); softness of parietal bones at the vertex (craniotabes); and a liver that is palpable down to 2 cm below the costal margin are all findings often demonstrated by normal infants and are of no diagnostic significance in the clinical situation presented.

544. A 55-year-old postmenopausal woman presents to her gynecologist for a routine examination. She denies any use of hormone replacement therapy and does not report any menopausal symptoms. She denies the occurrence of any abnormal vaginal bleeding. She has no history of any abnormal Pap smears and has been married for 30 years to the same partner. She is currently sexually active with her husband on a regular basis. Two weeks after her examination, her Pap smear comes back as atypical glandular cells of undetermined significance (AGUS). Which of the following is the most appropriate next step in the management of this patient?

- A. Colposcopy, endometrial biopsy, endocervical curettage
- B. HPV testing
- C. Hysterectomy
- D. Repeat the Pap in 4 to 6 months

Answer: A

Approximately 0.5% of Pap smears come back with glandular cell abnormalities. These abnormalities can be associated with squamous lesions, adenocarcinoma in situ, or invasive adenocarcinoma. Therefore, any patient with AGUS should undergo immediate colposcopy and endocervical curettage. In addition, postmenopausal women should have endometrial sampling as the abnormality may be within the uterine cavity. Hysterectomy or conization might be indicated based on results of the colposcopy; however, colposcopy must be performed prior to these surgical procedures to establish a diagnosis.

545. A delivery before how many weeks of gestation is called preterm?

- A. 28
- B. 34
- C. 37
- D. 40

Answer: C

1. Labor (contractions resulting in cervical change) that begins before 37 wk gestation is considered preterm. 2. Risk factors include premature rupture of membranes, uterine abnormalities, infection, cervical incompetence, prior preterm birth, multifetal pregnancy, and placental abnormalities. 3. Diagnosis is clinical. 4. Causes are identified and treated if possible. 5. Management typically includes bed rest, tocolytics (if labor persists), corticosteroids (if gestational age is < 34 wk), and possibly magnesium sulfate (if gestational age is < 32 wk). 6. Antistreptococcal antibiotics are given pending negative anovaginal culture results.

546. A 23-year-old G3P1011 at 6 weeks presents for routine prenatal care. She had a cesarean delivery 3 years ago for breech presentation after a failed external cephalic version. Her daughter is Rh-negative. She also had an elective termination of pregnancy 1 year ago. She is Rh-negative and is found to have a positive anti-D titer of 1:8 on routine prenatal labs. Failure to administer RhoGAM at which time is the most likely cause of her sensitization?

- A. After elective termination

- B. At the time of cesarean delivery
- C. At the time of external cephalic version
- D. Within 3 days of delivering an Rh-negative fetus

Answer: A

To prevent maternal Rh sensitization, pregnant women who are Rh-negative should receive RhoGAM or Rh immune globulin (antibody to the D antigen) in the following situations: after a spontaneous or induced abortion, after an ectopic pregnancy, at the time of an amniocentesis/CVS/PUBS, at 28 weeks gestational age, within 3 days of a delivery of an Rh-positive fetus, at the time of external cephalic version, with second- or third-trimester antenatal bleeding, and in the setting of abdominal trauma.

547. A woman has a Wilson disease. Which of the following is medically contraindicated for this woman?

- A. Condoms
- B. Copper containing intrauterine device
- C. Laparoscopic tubal ligation
- D. Progestin-only contraceptive pills

Answer: B

Progestin only pills are contraindicated in women with unexplained uterine bleeding or breast cancer. Both condoms and the diaphragm, used in conjunction with spermicides, are effective contraceptives. The diaphragm should carefully fit in the vagina and is therefore not applicable to women with anatomic distortion of the vagina. Latex condoms should not be used in women with a known latex allergy. Manufacturer's contraindications to IUD use include: history of acute, chronic or recurrent pelvic inflammatory disease (PID), multiple sexual partners, or ectopic pregnancy or condition predisposing to ectopic pregnancy. Wilson's disease or copper allergy are contraindications to the use of a copper-containing IUD. Although tubal ligation may be considered in the patient with chronic obstructive lung disease, the risk of general anesthesia and surgical intervention in this patient is probably high enough to indicate a more conservative approach, such as the use of an IUD.

548. Your 25-year-old patient is pregnant at 36 weeks gestation. She has an acute urinary tract infection (UTI). Of the following medications used in the treatment of UTIs, which is contraindicated in the treatment of this patient?

- A. Ampicillin
- B. Cephalexin
- C. Nitrofurantoin
- D. Trimethoprim/sulfamethoxazole

Answer: D

Trimethoprim-sulfamethoxazole (Bactrim) should not be used in the third trimester because sulfa drugs can cause kernicterus. Tetracycline may cause fetal dental anomalies and inhibition of bone growth if administered during the second and third trimesters, and it is a potential teratogen to first-trimester fetuses. Administration of tetracyclines can also cause severe hepatic decompensation in the mother, especially during the third trimester. Chloramphenicol may cause the gray baby syndrome (symptoms of which include vomiting, impaired respiration, hypothermia, and, finally, cardiovascular collapse) in neonates who have received large doses of the drug. No notable adverse effects have been associated with the use of penicillins or cephalosporins.

549. A 25-year-old female presents with lower abdominal pain, fever, and a vaginal discharge. Pelvic examination reveals bilateral adnexal (ovarian) tenderness and pain when the cervix is manipulated. Cultures taken from the vaginal discharge grow *Neisseria gonorrhoeae*. What is your diagnosis of the cause of this patient's adnexal pain? Pregnant prolonged labour for 12hrs asthmatic, mitral stenosis what is the indication for forceps delivery?

- A. Appendicitis
- B. Endometritis
- C. Ovarian torsion
- D. Pelvic inflammatory disease

Answer: D

Pelvic inflammatory disease (PID) is a common disorder caused by infection with either gonococci (the most common cause), chlamydiae, or enteric bacteria. Gonococcal infection, seen microscopically as gram-negative intracellular diplococci, begins in the Bartholin's glands and then spreads upward to involve the fallopian tubes and tuboovarian regions. This produces PID, which is characterized by pelvic pain, fever, adnexal tenderness, and pain when the cervix is manipulated. Complications of PID include peritonitis from rupture of a tuboovarian abscess, infertility, and intestinal obstruction.

550. A 28-year-old woman presents to the gynecology clinic with a two year history of breast pain. The pain is worse just before her menses and denies any nipple discharge. Her last menstrual period was six days prior to presentation. There is no family history of breast cancer and her menstrual cycle began at 16 years of age. Physical exam reveals diffuse nodularity in the upper outer quadrants of both breasts. There is no lymphadenopathy.

- A. Breast cancer
- B. Fat necrosis
- C. Fibroadenoma
- D. Fibrocystic Breast Disease

Answer: D

Fibrocystic Breast Disease
1. Definition: Changes in the breast that occur due to evolution and involution.
2. It is benign condition.
3. Very common in pre-menopausal females.
4. Patients present with bilateral painful, rubbery, firm, mobile masses; who experiences more tenderness during her menses.
5. Exam: Nodular breast diffusely on palpation.
6. Diagnosis: Excisional biopsy is the gold standard.
7. Complication: Breast cancer.
8. Treatment: Supportive, except for large lesions, e.g., Cysts or lumps, which can be excised.
9. Fibrocystic disease is treated with aspiration of the cyst, which should yield clear fluid (serous to greenish) and non-bloody) and result in the disappearance of the mass. Afterwards, patients are typically observed for 4 to 6 weeks.

551. A primigravida at 16 weeks of pregnancy comes for a regular checkup. She is RH negative. Which of the followings is the best next step for this woman?

- A. Anti-D Rh immunoglobulin
- B. Rh antibody titer
- C. Ultrasound examination
- D. aFP level

Answer: B

Rh antibody titer during the initial prenatal visit if she's RH negative. Unsensitized patients do not yet have antibodies to Rh positive blood. The goal is to keep it that way: so any time that fetal blood cells may cross the placenta, anti-D Rh immunoglobulin (RhoGAM) are given. Prenatal antibody screening is done at 28 and 35 weeks. Patients who continue to be unsensitized at 28 weeks should receive anti-D Rh immunoglobulin prophylaxis. At delivery, if the baby is Rh positive, the mother should be given anti-D Rh immunoglobulin again. The patient is considered sensitized if she has a titer level more than 1:4. If the titer is less than 1:16, no further treatment is necessary. If it reaches 1:16 at any point during the pregnancy, serial amniocentesis should be done. Serial amniocentesis allows for evaluation of the fetal bilirubin level.

Reference: Master the board. 2nd edition P461

552. A 22-year-old woman comes to the office with complaints of mild right lower quadrant abdominal pain for 4 hours. She is sexually active and does not use contraception. Her last period was 6 weeks ago. A vaginal ultrasound is performed the uterus was empty. Which of the following is the best next step to confirm the diagnosis?

- A. Colposcopy
- B. Complete blood count
- C. Urine analysis
- D. Urine b-hCG

Answer: D

This patient most likely has secondary amenorrhea caused by ectopic pregnancy. The best next step to confirm the diagnosis is to get a pregnancy test - b-hCG urine test.

553. An old female was done endometrial biopsy, which showed: high grade hyperplasia with atypia. Which of the following is the is the best management?

- A. Cauterization
- B. D&C
- C. Total abdominal hysterectomy
- D. Trial of OCP

Answer: C

For patients who present with cellular atypia, the general recommendation would be to perform a hysterectomy. If a hysterectomy is not a viable option (eg, the patient is young and desires future childbearing or the patient is a very poor surgical candidate), then high-dose continuous progestin therapy can be used.

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http://www.medscape.com/viewarticle/507187#vp_2

<https://innovativegyn.com/conditions/endometrial-hyperplasia-2/>

554. A 20-year-old primigravid woman at 28 weeks gestation is brought the doctor with the high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most appropriate next step in management?

- A. Hospitalization with administration of IV fluids and antibiotics
- B. Nitrofurantoin for 3 days
- C. Oral antibiotics for 5 days
- D. Surgical consultation

Answer: A

Pyelonephritis

1. Escherichia coli accounts for more than 70% of cases.
2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
4. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes).
7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

555. A 22-year-old woman is brought to the emergency room with diffuse abdominal pain, uterine and adnexal tenderness and lightheadedness. Her past medical history is significant for pelvic inflammatory disease. Her temperature is 37 C, blood pressure is 90/60 mm Hg, pulse is 125/min, and respiration rate is 18/min. Which of the following is the most likely diagnosis?

- A. Normal pregnancy
- B. Placenta previa
- C. Ruptured ectopic pregnancy
- D. Threatened abortion

Answer: C

1. Ectopic pregnancy is the implantation of zygote outside of uterus
2. Ruptured ectopic pregnancy presents with diffuse abdominal pain, cervical and adnexal tenderness, lightheadedness, and hemodynamic instability
3. Most commonly occurs in ampulla of fallopian tube (95% of cases)
Risk factors of EP:
a. Pelvic inflammatory disease
b. Gynecologic surgery
c. Prior ectopic pregnancy
d. Sexually transmitted diseases
e. Smoking
The classic clinical triad of ectopic pregnancy is as follows:
1. Abdominal pain
2. Amenorrhea
3. Vaginal bleeding
The presence of the following signs suggests a surgical emergency:
1. Abdominal rigidity
2. Involuntary guarding
3. Severe tenderness
4. Evidence of hypovolemic shock (eg, orthostatic blood pressure changes, tachycardia)
Management:
1. Ruptured ectopic pregnancy: Immediate laparotomy/salpingectomy
2. Unruptured ectopic pregnancy: Blood beta hCG is useful in diagnosis with values rising by less than 66% over 48hrs. Management is either medical by use of methotrexate or surgically by laparoscopy or salpingectomy

556. A 32-year-old G3P2 at 39 weeks gestation presented to the hospital with ruptured membranes and 4 cm dilated. She has a history of two prior vaginal deliveries, with her largest child weighing 3800 g at birth. Over the next 2 hours she progresses to 7 cm dilated. Two hours later, she remains 7 cm dilated. The estimated fetal weight by ultrasound is 3200 g. Which of the following labor abnormalities best describes this patient?

- A. Hypertonic dysfunction
- B. Prolonged latent phase
- C. Protracted active-phase dilation
- D. Secondary arrest of dilation

Answer: D

The labor portrayed is characteristic of a secondary arrest of dilation. The woman has entered the active phase of labor, as she previously progressed from 4 to 7 cm in less than 2 hours and then remains 7 cm over an additional 2 hours. The multiparous woman normally progresses at a rate of at least 1.5 cm/h (and the nullipara at least 1.2 cm/h) in the active phase. Dilation at a slower rate is a protraction disorder. Primary dysfunction, prolonged latent phase, and hypertonic dysfunction occur prior to the active phase. The best evidence available indicates that this labor is hypotonic. Since the ultrasound indicates a fetus without obvious abnormalities, and since the patient's previous infants were larger than this one, we assume the absence of cephalopelvic disproportion (CPD). Oxytocin is the treatment of choice. If CPD were suspected, then the treatment preferred by many obstetricians would be cesarean section.

557. A 35-year-old intravenous (IV) drug abuser with known chronic hepatitis B virus (HBV) status suddenly presents with an acute hepatitis episode. He develops massive hepatic necrosis and dies. Which of the following is most likely responsible for the change in his condition?

- A. A hepatitis B mutant has developed
- B. He has contracted hepatitis D virus (HDV)
- C. He has developed cirrhosis
- D. His food contained hepatitis A virus (HAV)
- E. His food contained hepatitis E virus (HEV)

Answer: B

HDV, previously known as the delta agent, was first described in 1977 and has been shown to be a satellite RNA virus that requires HBs Ag for encapsidation. Thus, it requires the presence of replicating HBV. It is found most often in IV drug abusers and persons who have received multiple blood transfusions. HDV can be acquired as a coinfection with HBV and follows the progress of the HBV infection. If HBV is resolved, HDV is also resolved; if HBV becomes chronic, HDV also persists. HDV can also be acquired as a superinfection in a person with chronic HBV. In these individuals, an acute hepatitis episode occurs that may progress to fulminant hepatitis described in the vignette. This situation strongly suggests that the patient contracted HDV (b). It is unlikely that a HBV mutant would develop (a). Cirrhosis (c) develops over years and is a chronic process involving fibrotic changes in the liver. It is possible that the person acquired HAV from food (d), but fulminant hepatitis is not usually seen in the United States except in those over 50; even then, it is rare (2% or less of all cases of HAV infection result in death). HEV is found in Mexico, India, parts of China and southeast Asia, and North Africa. Food in the United States would be unlikely to contain HEV (e).

558. A female with polycystic ovarian syndrome noticed hyperpigmented skin in her neck and axilla. Which of the following is the correct name of this skin abnormality?

- A. Acanthosis nigricans
- B. Linea nigra
- C. Melanoma
- D. Vitiligo

Answer: A

Acanthosis nigricans is a brown to black, poorly defined, velvety hyperpigmentation of the skin. It is usually found in body folds, such as the posterior and lateral folds of the neck, the armpits, groin, navel, forehead, and other areas. Endocrine syndromes associated with acanthosis nigricans can develop in many conditions, particularly: starts with insulin resistance, such as diabetes mellitus and metabolic syndrome; excess circulating androgens, particularly Cushing's disease, acromegaly, polycystic ovarian disease; Addison's disease and hypothyroidism.

559. You are called to the pediatric emergency department to evaluate a 7-year-old girl for sexual assault. As a health care provider taking care of this girl, which of the following are you required to do?

- A. Administer antibiotics only if testing for infection is positive.
- B. Demand that the child be placed in foster care pending further investigation.
- C. Hospitalize the child until the offender has been apprehended.
- D. Notify child welfare authorities.

Answer: D

In evaluating a child of suspected sexual assault, you should carefully obtain a history and allow the child to say what happened. Techniques of examining a rape victim should be employed (collection of cultures, clothing, hair samples, etc). The police and child protective services should be notified. Any injuries should be treated, and the child should be hospitalized only if needed based on injuries. Appropriate antibiotic prophylaxis should be given and counseling should be scheduled. The child should be returned to the home only if it is deemed safe.

560. A 36-year-old man presents to the physician with a painless ulcer on the dorsal penis and bilateral regional lymphadenopathy. Which of the following is the best treatment for this patient?

- A. Clindamycin
- B. Gentamicin
- C. IM penicillin
- D. Linezolid

Answer: C

Syphilis1. Syphilis occurs in primary, secondary, and tertiary stages (Infected people are contagious during the first 2 stages.)2. Infection is usually transmitted by sexual contact (including genital, orogenital, and anogenital) but may be transmitted non-sexually by skin contact or transplacentally.3. Syphilis may manifest at any stage and may affect multiple or single organs, mimicking many other disorders. 4. Syphilis may be accelerated by coexisting HIV infection; in these cases, eye involvement, meningitis, and other neurologic complications are more common and more severe. Primary syphilis1. After an incubation period of 3 to 4 wk (range 1 to 13 wk), a primary lesion (chancre) develops at the site of inoculation. 2. The initial red papule quickly forms a chancre, usually a painless ulcer with a firm base; when rubbed, it produces clear fluid containing numerous spirochetes. Nearby lymph nodes may be enlarged, firm, and non-tender.3. The chancre usually heals in 3 to 12 weeks.4. In primary stage of syphilis, serologic testing is not reliable and includes a high rate of false-negatives, so diagnosis is made via spirochete identification on dark field microscopy. 5. A single dose of intramuscular benzathine penicillin G is the treatment of choice for primary syphilis. In non-pregnant patients with penicillin allergy, a 2-week course of doxycycline can be used.

561. A patient in your practice calls you in a panic because her 14-year-old daughter has been bleeding heavily for the past 2 weeks and now feels a bit dizzy and light-headed. The daughter experienced menarche about 6 months ago, and since that time her periods have been irregular and very heavy. You instruct the mother to bring her daughter to the emergency room. When you see the daughter in the emergency room, you note that she appears very pale and fatigued. Her blood pressure and pulse are 110/60 mm Hg and 70 beats per minute, respectively. When you stand her up, her blood pressure remains stable, but her pulse increases to 100. While in the emergency room, you obtain a more detailed history. She denies any medical problems or prior surgeries and is not taking any medications. She reports that she has never been sexually active. On physical examinations, her abdomen is benign. She will not let you perform a speculum examination, but the bimanual examination is normal. She is 5 ft 4 in tall and weighs 95 lb. Which of the following blood tests is not indicated in the evaluation of this patient?

- A. BHCG
- B. Bleeding time
- C. CBC
- D. Estradiol level

Answer: D

The case presented is a typical representation of a patient with dysfunctional uterine bleeding attributed to anovulation. The onset of menarche in young women is typically followed by approximately 5 years of irregular cycles that result from anovulation secondary to immaturity of the hypothalamic-pituitary axis. Uterine cancer, cervical polyps, or cervical pathology would be rare in a girl of this age. These other causes of abnormal bleeding would be more common in older women. Of course, pregnancy should always be considered as a possible cause in all women of reproductive age. Appropriate lab tests to order in the emergency room would be a BHCG (to rule out pregnancy), a bleeding time (20% of adolescents with dysfunctional uterine bleeding have a coagulation defect), and blood type and screen (since she is orthostatic she may require a blood transfusion). A CBC will show the degree of blood loss this patient has suffered. Measuring an estradiol level would serve no purpose in the workup of this patient.

562. A sexually active woman was seen for a routine gynecologic exam that included a Pap smear. The report indicated cervical intraepithelial neoplasia. In situ hybridization showed the presence of human papillomavirus (HPV) type 16 genomes within the neoplastic cells. Which of the following processes is required for HPV to lead to the development of cancer?

- A. Integration of the viral genome
- B. Loss of HPV E6 and E7 genes
- C. Mutation of the virus
- D. Viral replication

Answer: A

HPVs cause nongenital cutaneous and anogenital or mucosal syndromes. Mucosal and anogenital syndromes include cervical intraepithelial neoplasia (CIN) and cancer; conjunctival, oral, and laryngeal papillomas, and anogenital warts or condyloma accuminatum. HPV types 16, 18, 31, and 45 are high-risk strains associated with CIN and cancer, although additional types have also been found in such lesions. HPV types 6 and 11 cause the majority of papillomas and condyloma accuminatum. HPV infect the basal keratinocytes of the epithelial layer of skin and mucous membranes. Expression of viral proteins E5, E6, and E7 stimulates cell growth and results in thickening of the layers. As the cells mature, genome replication takes place and mature virions are released at the epithelial surface. The oncogenic mechanism of HPV involves integration of the viral genome (a) into the host chromosome. This results in inactivation of genes required for viral replication (d), which does not occur in these cells, and overexpression of HPV E6 and E7 proteins, which bind p53 and p105RB cellular growth suppressor proteins, a production of a clone of replicating cells with possible progression to neoplasia. Loss of HPV E6 and E7 (b) would forestall oncogenic changes; mutation of the virus (c) is not part of the process.

563. A 48-year-old female comes with complaints of irregular menses for 3 months. Her menses become lighter and sometimes lasts for 1-2 days with spotting. Which of the following is the best next step for diagnosis in this patient?

- A. Check FSH
- B. Check Prolactin level
- C. Check TSH and T4
- D. Check testosterone

Answer: A

Menopause is the time in most women's lives when menstrual periods stop permanently, and they are no longer able to bear children. Menopause typically occurs between 49 and 52 years of age. During the transition to menopause, menstrual patterns can show shorter cycling (by 2–7 days) or longer cycles remain possible. There may be irregular bleeding (lighter, heavier, spotting). Serum follicle-stimulating hormone (FSH) measurement alone can be used to diagnose the disease. The anterior pituitary secretes FSH and LH at high levels due to the dysfunction of the ovaries and consequent low estrogen levels.

564. A 32-year-old woman presents to the emergency department with abdominal pain and vaginal bleeding. Her last menstrual period was 8 weeks ago and her pregnancy test is positive. On examination she is tachycardic and hypotensive and her abdominal examination findings reveal peritoneal signs, a bedside abdominal ultrasound shows free fluid within the abdominal cavity. The decision is made to take the patient to the operating room for emergency exploratory laparotomy. Which of the following is the most likely diagnosis?

- A. Hydatidiform mole
- B. Incomplete abortion
- C. Missed abortion
- D. Ruptured ectopic pregnancy

Answer: D

The diagnosis is ectopic pregnancy. Molar pregnancy, incomplete abortion, and missed abortion can also be associated with abdominal pain and vaginal bleeding, but would not be associated with free fluid (blood) within the abdominal cavity. A torsed ovarian cyst would present with intermittent abdominal pain. The ultrasound would show a pelvic mass with no flow to the ovary, not free fluid.

565. A girl with both breast and pubic hair development at Tanner stage 4 had a normal menarche a few months back and regular periods. However, she complains of spotting between her periods. What will you tell her?

- A. Are you taking OCPs
- B. Reassurance
- C. You have a PCOS

D. You have anorexia nervosa

Answer: B

This girl most likely has normal puberty. After starting the menarche for 6-12 months could be spotting between the period because the pituitary-ovary system has been not completely developed. So, reassurance is the best next recommendation in this patient.

566. A patient with a pelvic inflammatory disease with salpingitis. She was on ceftriaxone treatment without improvement. Which of the following is most likely the cause of her symptoms?

- A. Adenovirus
- B. Chlamydia
- C. Herpes simplex type II
- D. N. Gonorrhea

Answer: B

The organisms most commonly isolated in cases of acute PID are N. gonorrhoeae and C. trachomatis.

C. trachomatis is an intracellular bacterial pathogen and the predominant sexually transmitted organism that causes PID. And ceftriaxone covers N. gonorrhea but not Chlamydia trachomatis. Treatment of pelvic inflammatory disease (PID) should include empirical broad-spectrum antibiotics to cover the full complement of common causes. Antibiotics chosen should be effective against Chlamydia trachomatis and Neisseria gonorrhoeae, as well as against gram-negative facultative organisms, anaerobes, and streptococci.

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<http://emedicine.medscape.com/article/256448-treatment#d11>

<http://emedicine.medscape.com/article/256448-medication>

<https://www.cdc.gov/std/tg2015/pid.htm>

<https://www.cdc.gov/std/chlamydia/treatment.htm>

567. You are asked to assist in the well-born nursery with neonatal care. Which of the following is a part of routine care in a healthy infant?

- A. Administration of ceftriaxone cream to the eyes for prophylaxis for gonorrhea and chlamydia
- B. Administration of hepatitis B vaccination for routine immunization

- C. Administration of vitamin A to prevent bleeding problems
- D. Cool-water bath to remove vernix

Answer: B

The Centers for Disease Control recommends that all newborns receive routine immunization against hepatitis B prior to being discharged from the hospital. Only if the mother is positive for hepatitis B surface antigen should the neonate also be passively immunized with hepatitis B immune globulin. According to the Centers for Disease Control, all newborns should receive eye prophylaxis against chlamydia and gonorrhea with either silver nitrate, erythromycin ophthalmic ointment, or tetracycline ophthalmic ointment. Vitamin K is routinely administered to prevent hemorrhagic disease of the newborn; breast milk contains only very small amounts of vitamin K. Since the temperature of newborns drops very rapidly after birth, newly delivered infants must be monitored in a warm crib. All infants must be accurately identified via identification bands.

568. A 40-year-old pregnant woman comes to the office at 38 weeks of gestation with complaints of painless vaginal bleeding. Ultrasound examination showed low lying placenta. Which of the following would make the doctor decide to do a cesarean section with the hysterectomy?

- A. .Previous cesarean section
- B. Age of patient
- C. Multiparity
- D. Placenta accreta

Answer: D

Placenta accreta occurs when all or part of the placenta attaches abnormally to the myometrium. Treatment may be delivery by cesarean section and abdominal hysterectomy if placenta accreta is diagnosed before birth. Oxytocin and antibiotics are used for post-surgical management. When there is partially separated placenta with focal accreta, the best option is a removal of placenta. If it is important to save the woman's uterus (for future pregnancies) then resection around the placenta may be successful. Conservative treatment can also be uterus sparing but may not be as successful and has a higher risk of complications.

569. A 61-year-old woman presents to the physician with vaginal dryness, dyspareunia, dysuria and increased urinary frequency. Examination shows scarce pubic. Which of the following is the most likely cause of such disease?

- A. High LH and FSH
- B. Permanent loss of estrogen
- C. Permanent loss of oxytocin
- D. Permanent loss of progesterone

Answer: B

1. Menopause is the result of permanent loss of estrogen. Menopause occurs in patients aged 48 to 52. 2. Symptoms of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, dyspareunia and night sweats. 3. Vaginal atrophy (atrophic vaginitis) is characterized by dryness, inflammation, and thinning of the epithelial lining of the vagina and lower urinary tract due to loss of estrogen. 4. Vaginal atrophy presents with vaginal dryness and dysuria, and physical exam findings of pale, dry vaginal mucosa, diminished labial fat pad, and scarce pubic hair. 5. It typically occurs in menopausal women. 6. Atrophic vaginitis is treated with estrogen

570. A 40-year-old lady presented with a lump in the left upper outer quadrant of right breast. The lump was painless and measured 1 cm x 2 cm. There was no history of trauma. The patient was worried about breast cancer since her mother died due this disease. Which of the following is the most appropriate first step to be taken?

- A. Advise for regular breast self-examination
- B. Ask for bilateral mammography
- C. Core biopsy
- D. Immediate removal of the lump
- E. Perform fine needle aspiration

Answer: B

This patient has a major risk factor for breast cancer which is the history of breast cancer in the first-degree relative. Others risk factors are: >50yo, BRCA1/BRCA2 carrier, history of ionizing radiation exposure, nulliparity, first kid after 30yo, history of breast cancer in the first-degree relative, hormone therapy, obesity (BMI>30). The best next step for this patient is to check if the cancer is not bilateral by mammography.

571. A 38-year-old G1P1 comes to see you for her first prenatal visit at 10 weeks gestational age. She had a previous term vaginal delivery without any complications. You detect fetal heart tones at this visit, and her uterine size is consistent with dates. You also draw her prenatal labs at this visit and tell her to follow up in 4 weeks for a return OB visit. Two weeks later, the results of the patient's prenatal labs come back. Her blood type is A–, with an anti-D antibody titer of 1:4. Which of the following is the most appropriate next step in the management of this patient?

- A. Repeat the titer at 28 weeks.
- B. Repeat the titer in 4 weeks.
- C. Schedule PUBS as soon as possible to determine fetal blood type.
- D. Schedule an amniocentesis for amniotic fluid bilirubin at 16 weeks.

Answer: B

During the first prenatal visit, all pregnant women are screened for the ABO blood group and the Rh group, which includes the D antigen. If the woman is Rh-negative, antibody screening is performed. If the antibody D titer is positive, the woman is considered sensitized because she has produced antibodies against the D antigen. Sensitization occurs as a result of exposure to blood from an Rh-positive fetus in a prior pregnancy. A fetus that is Rh-positive possesses red blood cells that express the D antigen. Therefore, the maternal anti-D antibodies can cross the placenta and cause fetal hemolysis. Once the antibody screen is positive for isoimmunization, the titer should be followed at regular intervals (about every 4 weeks). A titer of 1:16 or greater is usually indicative of the possibility of severe hemolytic disease of the fetus. Once the critical titer is reached, further evaluation is done by amniotic fluid assessment or analysis of fetal blood via PUBS. In the presence of fetal hemolysis, the amniotic fluid contains elevated levels of bilirubin that can be determined via spectrophotometric analysis. Cordocentesis, or percutaneous umbilical blood sampling, involves obtaining a blood sample from the umbilical cord under ultrasound guidance. The fetal blood sample can then be analyzed for Hct and determination of fetal blood type. Cordocentesis also allows the fetus with anemia to undergo a blood transfusion.

572. A 34-year-old woman with a history of pelvic inflammatory disease comes to the office for evaluation of infertility. Which of the following is the most common cause of infertility?

- A. Abnormal cervical mucus
- B. Decreased ovarian reserve or ovulatory dysfunction
- C. Sperm disorders
- D. Tubal dysfunction and pelvic lesions

Answer: C

1. Infertility is usually defined as inability of a couple to conceive after 1 yr of unprotected intercourse. 2. Hysterosalpingography (HSG) is a radiographic diagnostic study of the uterus and fallopian tubes most commonly used in the evaluation of infertility. 3. Identifying risk factors for tubal disease (e.g., pelvic inflammatory disease) is important when evaluating patients with infertility. Infertility can be caused by the following: 1. Sperm disorders (35%) 2. Decreased ovarian reserve or ovulatory dysfunction (20%) 3. Tubal dysfunction and pelvic lesions (30%) 4. Abnormal cervical mucus (5%) 5. Unidentified factors (10%) Pelvic inflammatory disease (PID) 1. PID is infection of the upper female genital tract: the cervix, uterus, fallopian tubes, and ovaries; abscesses may occur. 2. Common symptoms and signs include lower abdominal pain, cervical discharge, and irregular vaginal bleeding. 3. Long-term complications include infertility, chronic pelvic pain, and ectopic pregnancy. 4. Diagnosis includes PCR of cervical specimens for *Neisseria gonorrhoeae* and *Chlamydiae*, microscopic examination of cervical discharge (usually), and ultrasonography or laparoscopy (occasionally). 5. Treatment is with antibiotics.

573. A 62-year-old woman comes with complaints of post-menopausal bleeding. Her cervical Pap smear was normal. She had not been on any hormone replacement therapy. Which of the following is the most common benign cause of bleeding in this age?

- A. Atrophic vaginitis
- B. Cervical erosion
- C. Cervical polyps
- D. Endometrial Hyperplasia

Answer: A

Atrophic vaginitis is an inflammation of the vagina due to the thinning and shrinking of the tissues, as well as decreased lubrication. The most common cause of vaginal atrophy is the decrease in estrogen which happens naturally during perimenopause, and increasingly so in post-menopause. Atrophic vaginitis is one of the most common benign postmenopausal bleeding (PMB). Other genital symptoms include dryness, itching, burning, soreness, pressure, white discharge, malodorous discharge due to infection, painful sexual intercourse, bleeding after intercourse. In addition, sores and cracks may occur spontaneously.

574. A 24-year-old woman comes with complaints of sudden RUQ pain. During physical examination there is tenderness and guarding in the lower right quadrant. During pelvic doppler sonography, there is normal left ovary and right ovarian without ovarian blood flow. Which of the following is most likely diagnosis in this woman?

- A. Ectopic pregnancy
- B. Ovarian abscess
- C. Ovarian cyst
- D. Ovarian torsion

Answer: D

Ovarian torsion (OT) is the rotation of the ovary at its pedicle to such a degree as to occlude the ovarian artery and/or vein. Patients with ovarian torsion often present with sudden onset of sharp and usually unilateral lower abdominal pain, in 70% of cases accompanied by nausea and vomiting. Lack of ovarian blood flow on doppler sonography seems to be a good predictor of ovarian torsion. Surgical treatment of ovarian torsion includes laparoscopy to uncoil the torsed ovary and possibly oophoropexy to fixate the ovary which is likely to twist again. In severe cases, where blood flow is cut off to the ovary for an extended period of time, necrosis of the ovary can occur. In these cases, the ovary must be surgically removed. [

575. After 2 weeks after childbirth, the a pregnant woman has a pain in the right breast, which is increasing for 3 days. During the physical examination, her temperature is 39 ° C, there is hyperemia of the skin, enlargement, pain, and deformity of the right breast. Which of the following is the most likely diagnosis in this woman?

- A. Breast engorgement
- B. Lactostasis
- C. Mastitis
- D. Mastopathy

Answer: C

Mastitis is inflammation of the breast or udder, usually associated with breastfeeding. Symptoms typically include local pain and redness. There is often an associated fever and general soreness. Onset is typically fairly rapid and usually occurs within the first few months of delivery. Complications can include abscess formation. Risk factors include poor latch, cracked nipples, use of a breast pump, and weaning. The bacteria most commonly involved are *Staphylococcus* and *Streptococci*. Diagnosis is typically based on symptoms. Ultrasound may be useful for detecting a potential abscess. Prevention is by frequently and properly breastfeeding. When infection is present, antibiotics such as cephalexin may be recommended. Breastfeeding should typically be continued, as emptying the breast is important for healing. Tentative evidence supports benefits from probiotics. About 10% of breastfeeding women are affected.

576. You are following a 38-year-old G2P1 at 39 weeks in labor. She has had one prior vaginal delivery of a 3800-g infant. One week ago, the estimated fetal weight was 3200 g by ultrasound. Over the past 3 hours her cervical examination remains unchanged at 6 cm. Fetal heart rate tracing is reactive. An intrauterine pressure catheter (IUPC) reveals two contractions in 10 minutes with amplitude of 40 mm Hg each. Which of the following is the best management for this patient?

- A. Administration of oxytocin
- B. Ambulation
- C. Cesarean section
- D. Sedation

Answer: A

The best evidence available indicates that this labor is hypotonic and that the contractions are inadequate. Two contractions of 40 mm Hg intensity during a 10-minute period equates to 80 MUV. About 200 MUV are needed to consider contractions to be adequate to effect delivery. Since the ultrasound indicates a fetus without obvious abnormalities and smaller than her first infant, we assume the absence of cephalopelvic disproportion (CPD). Oxytocin is the treatment of choice in this situation. If CPD were suspected, then the treatment preferred by many obstetricians would be cesarean section.

577. A patient with severe painful vesicles on genital area. Which of the following is the most likely diagnosis in this woman?

- A. HIV
- B. HPV
- C. HSV
- D. Syphilis

Answer: C

Herpes simplex virus

Clinical features: The incubation period of primary genital herpes is 3-7 days (range, 1 day to 3 weeks). Constitutional symptoms include fever, headache, malaise, and myalgia (prominent in the first 3-4 days). Local symptoms include pain, itching, dysuria, vaginal and urethral discharge, and tender lymphadenopathy.

Clinical features in women: Herpetic vesicles appear on the external genitalia, labia majora, labia minora, vaginal vestibule, and introitus. In most areas, the vesicles rupture, leaving exquisitely tender ulcers.

Ulcers are seen more commonly than vesicles at the time of presentation because of the frailty and thin walls of the vesicles. The vaginal mucosa is inflamed and edematous. The cervix is involved in 70%-90% of cases and is characterized by ulcerative or necrotic cervical mucosa. Cervicitis is the sole manifestation in some patients. Dysuria may be very severe and may cause urinary retention. Dysuria is associated with urethritis, and HSV can be isolated in the urine. The HSV-1 infection causes urethritis more often than does HSV-2 infection.

References:

<http://emedicine.medscape.com/article/218580-clinical>
Toronto notes 2017, GY29.

578. A 24-year-old presents at 30 weeks with a fundal height of 50 cm. Which of the following statements concerning polyhydramnios is true?

- A. Acute polyhydramnios rarely leads to labor prior to 28 weeks.
- B. Complications include placental abruption, uterine dysfunction, and postpartum hemorrhage.
- C. Maternal edema, especially of the lower extremities and vulva, is rare.
- D. The incidence of associated malformations is approximately 3%.

Answer: B

Polyhydramnios is an excessive quantity of amniotic fluid. The frequency of diagnosis varies, but polyhydramnios sufficient to cause clinical symptoms probably occurs in 1 of 1000 pregnancies, exclusive of twins. The incidence of associated malformations is about 20%, with CNS and GI abnormalities being particularly common. For example, polyhydramnios accompanies about half of cases of anencephaly and nearly all cases of esophageal atresia. Edema of the lower extremities, vulva, and abdominal wall results from compression of major venous systems. Acute hydramnios tends to occur early in pregnancy and, as a rule, leads to labor before the 28th week. The most frequent maternal complications are placental abruption, uterine dysfunction, and postpartum hemorrhage.

579. After delivery of a term infant with Apgar scores of 2 at 1 minute and 7 at 5 minutes, you ask that blood from the umbilical arteries be collected for pH. The umbilical arteries carry which of the following?

- A. Deoxygenated blood from the placenta
- B. Deoxygenated blood to the placenta
- C. Oxygenated blood from the placenta
- D. Oxygenated blood to the placenta

Answer: B

Deoxygenated fetal blood is returned directly to the placenta through the umbilical branches of the two hypogastric arteries. The umbilical arteries exit through the abdominal wall at the umbilicus and continue by way of the umbilical cord to the placenta. Deoxygenated blood circulates through the placenta then returns, oxygenated, to the fetus via the umbilical vein. The umbilical arteries atrophy and obliterate within 3 to 4 days after birth; remnants are called umbilical ligaments.

580. A 33-year-old woman is complaining of pain in her left breast for 3 months. On exam, you palpate two small 1-cm round rubbery masses in the right lower quadrant of her left breast. The masses are tender and noncompressible. No nodes are palpated in either axilla. Which of the following is the most likely diagnosis?

- A. Carcinoma of the breast
- B. Fibroadenoma

- C. Fibrocystic change
- D. Intraductal papilloma

Answer: B

1. Fibroadenoma classically presents as a discrete, firm, nontender, and highly mobile breast nodule. 2. The most common adolescent breast disorder is breast mass, the majority of which are fibroadenomas or benign cysts. 3. A clue to the diagnosis is a mass that's highly mobile on clinical exam. 4. Fibroadenomas are made up of stromal and epithelial cells. 5. No treatment is necessary. Surgical removal can be done if the mass is growing.

581. A 23-year-old woman comes to the clinic at 33 weeks gestation complaining of headaches and visual changes. She states that these symptoms began 3 days ago and have been worsening. The patient's vital signs are a blood pressure of 182/110 mmHg. On physical examination, a pain is evoked upon palpation of all 4 quadrants, in particular, the left upper quadrant. A urine dipstick demonstrates 4+ protein. Which of the following would be the best treatment for this patient?

- A. Deliver by cesarean section
- B. Induce the labor with oxytocin
- C. Labetalol
- D. MgSO₄

Answer: A

The patient is presenting with classic signs and symptoms of severe preeclampsia with end-organ damage, which requires immediate delivery by cesarean section. Severe preeclampsia (BP > 160/110 and 3-4+ urine dipstick protein) with evidence of end-organ damage, including a headache, epigastric pain, disseminated intravascular coagulation, oliguria, or pulmonary edema, is an obstetrical emergency that is managed by delivery regardless of gestation age.

582. A 33-year-old woman presents with foul smelling vaginal discharge. Wet mount and KOH prep are performed demonstrating clue cells. What is the treatment of choice for this patient?

- A. Ceftriaxone
- B. Oral metronidazole
- C. Pencillin G

D. Reassurance

Answer: B

1. Bacterial vaginosis is vaginitis due to a complex alteration of vaginal flora in which lactobacilli decrease and anaerobic pathogens overgrow.
2. Symptoms include a gray, thin, fishy-smelling vaginal discharge and itching.
3. Diagnosis is confirmed by testing vaginal secretions.
4. Treatment is usually with oral or topical metronidazole or topical clindamycin.

583. Which of the following is the correct place of testing females for gonorrhea?

- A. Bladder
- B. Cervix
- C. Ureter
- D. Urethra

Answer: B

Gonorrhea, also spelled gonorrhoea, is a sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae*. Many people have no symptoms. Men may have burning with urination, discharge from the penis, or testicular pain. Women may have burning with urination, vaginal discharge, vaginal bleeding between periods, or pelvic pain. Complications in women include pelvic inflammatory disease and in men include inflammation of the epididymis. If untreated, gonorrhea can spread to joints or heart valves. Gonorrhea is spread through sexual contact with an infected person. This includes oral, anal, and vaginal sex. It can also spread from a mother to a child during birth. Diagnosis is by testing the urine, urethra in males, or cervix in females.

584. A 38-year-old female comes with complaints of hot flashing beginning in the face, neck, and chest followed by profuse sweating in the upper body that lasts five minutes. These episodes are happening repetitively throughout the day and disturb her sleep at night. You order FSH which was 55 mIU/ml. In a one month, you have rechecked FSH level which was 63 mIU/ml. Her last menstrual period was over four months ago. Which of the following is the most likely diagnosis in this patient?

- A. Congenital adrenal hyperplasia
- B. Hyperthyroidism
- C. Menopause
- D. Premature ovarian failure

Answer: D

Premature ovarian failure is the loss of function of the ovaries before age 40. A commonly cited triad for the diagnosis is amenorrhea, hypergonadotropism, and hypoestrogenism. Serum follicle-stimulating hormone (FSH) measurement alone can be used to diagnose the disease. Two FSH measurements with one-month interval have been a common practice. The anterior pituitary secretes FSH and LH at high levels due to the dysfunction of the ovaries and consequent low estrogen levels. Typical FSH in POF patients is over 40 mIU/ml (post-menopausal range).

585. A 64-year-old woman comes to the physician with complaints of leakage of urine when she sneezes, laughs, or coughs. She reports that these symptoms occur only during the day. She denies any subjective fever, dysuria, or hematuria. Pelvic examination is notable for an atrophic vaginitis and weakness of pelvic floor muscles. Which of the following would be the best next step in treatment for this woman?

- A. Kegel exercise.
- B. Marshall-Marchell-Krantz (MMK) procedure
- C. Midurethral sling procedure
- D. The Burch procedure

Answer: A

This patient has stress incontinence and the best next step in treatment is Kegel exercise. Kegel exercises strengthen the pelvic floor muscles, which support the uterus, bladder, small intestine, and rectum. It helps in preventing and controlling urinary incontinence. Kegel exercises, also known as pelvic floor muscle training.

References: <http://www.mayoclinic.org/healthy-lifestyle/womens-health/in-depth/kegel-exercises/art-20045283> Toronto notes 2017, GY38

586. A 55-year-old woman had left radical mastectomy for breast cancer. Following the operation, she complained of weakness of her left shoulder, and she had difficulty in raising her arm above her head. Which of the following nerves is most likely affected in this patient?

- A. Axillary
- B. Dorsal scapular
- C. Long thoracic
- D. Suprascapular
- E. Thoracodorsal

Answer: C

The long thoracic nerve (external respiratory nerve of Bell; posterior thoracic nerve) supplies the serratus anterior muscle. This nerve characteristically arises from the anterior rami of three spinal nerve roots: the fifth, sixth, and seventh cervical nerves (C5-C7) although the root from C7 may be absent. The roots from C5 and C6 pierce through the scalenus medius, while the C7 root passes in front of the muscle. Due to its long, relatively superficial course, it is susceptible to injury either through direct trauma or stretch. Injury has been reported in almost all sports, typically occurring from a blow to the ribs underneath an outstretched arm. The long thoracic nerve can also be damaged during surgery for breast cancer, specifically radical mastectomies that involve removal of axillary lymph nodes. Symptoms are often minimal – if symptomatic, a posterior shoulder or scapular burning type of pain may be reported. A lesion of the nerve paralyses the serratus anterior to produce winged scapula, which is most prominent when the arm is lifted forward or when the patient pushes the outstretched arm against a wall. However, even winging may not be evident until the trapezius stretches enough to reveal an injury several weeks later.

587. Which of the following T lymphocytes would have an very low count in a patient with advanced AIDS?

- A. Cytotoxic
- B. Helper
- C. Memory
- D. Natural killer

Answer: B

1. **Human immunodeficiency virus (HIV)** infection results from 1 of 2 similar retroviruses (HIV-1 and HIV-2) that destroy CD4+ lymphocytes and impair cell-mediated immunity, increasing risk of certain infections and cancers.
2. HIV produces cellular immune deficiency characterized by the **depletion of helper T lymphocytes** (CD4+ cells). The loss of CD4+ cells results in the development of opportunistic infections and neoplastic processes.
3. Initial infection may cause nonspecific febrile illness.
4. Risk of subsequent manifestations related to immunodeficiency is proportional to the level of CD4+ lymphocytes. HIV can directly damage the brain, gonads, kidneys, and heart, causing cognitive impairment, hypogonadism, renal insufficiency, and cardiomyopathy. Manifestations range from asymptomatic carriage to AIDS, which is defined by serious opportunistic infections or cancers or a CD4 count of < 200/mL.
5. HIV infection can be diagnosed by antibody, nucleic acid (HIV RNA), or antigen (p24) testing.
6. Screening should be routinely offered to all adults and adolescents.
7. Treatment aims to suppress HIV replication by using combinations of 3 drugs that inhibit HIV enzymes; treatment can restore immune function in most patients if suppression of replication is sustained.

588. A 22-year-old G1P0 presents to your clinic for follow-up of evacuation of a complete hydatidiform mole. She is asymptomatic and her examination is normal. Which of the following would be an indication to start single-agent chemotherapy?

- A. A plateau of hCG titers for 1 week
- B. A rise in hCG titers
- C. Appearance of liver metastasis
- D. Return of hCG titer to normal at 6 weeks after evacuation

Answer: B

Single-agent chemotherapy is usually instituted if levels of hCG remain elevated 8 weeks after evacuation of a hydatidiform mole.

Approximately 50% of the patients who have persistently high hCG titers will develop malignant sequelae. If hCG titers rise or reach a plateau for 2 to 3 successive weeks following molar evacuation, a single-agent chemotherapy should be instituted, provided that the trophoblastic disease has not metastasized to the liver or brain. The presence of such metastases usually requires initiation of combination chemotherapy.

589. One day after a casual sexual encounter with a bisexual man recently diagnosed as antibody-positive for human immunodeficiency virus (HIV), a patient is concerned about whether she may have become infected. An HIV antibody titer is obtained and is negative. To test for seroconversion, when is the earliest you should reschedule repeat antibody testing after the sexual encounter?

- A. 1 to 2 weeks
- B. 12 to 15 weeks
- C. 3 to 4 weeks
- D. 4 to 10 weeks

Answer: D

Persons at high risk for infection by HIV include homosexuals, bisexual males, women having sex with a bisexual or homosexual male partner, intravenous drug users, and hemophiliacs. The virus can be transmitted through sexual contact, use of contaminated needles or blood products, and perinatal transmission from mother to child. The antibody titer usually becomes positive 2 to 8 weeks after exposure, and the presence of the antibody provides no protection against AIDS. Because of occasional delayed appearance of the antibody after initial exposure, if the initial test is negative, a repeat HIV screening test should be repeated at least 3 months after the likely exposure.

590. A 23-year-old G2P1 develops chorioamnionitis during labor and is started on ampicillin and gentamicin. She requires a cesarean delivery for arrest of active phase labor and the same antibiotics are continued after surgery. On postoperative day 3, the patient remains febrile and

symptomatic with uterine fundal tenderness. No masses are appreciated by pelvic examination. She is successfully breast-feeding and her breast examination is normal. Which antibiotic should be initiated to provide better coverage?

- A. Cefazolin
- B. Clindamycin
- C. Moxifloxacin
- D. Piperacillin with tazobactam

Answer: B

Postpartum endometritis is much more common after cesarean delivery and the infection is commonly polymicrobial. Fever is the most common criteria for the diagnosis. Following vaginal delivery the antibiotic treatment of choice is ampicillin and gentamicin, the same as the treatment for chorioamnionitis. After cesarean delivery, broad-spectrum coverage with clindamycin and gentamicin is the standard of care, and ampicillin is added to cover enterococcus if fever persists after 48 to 72 hours. Clindamycin should be used for the treatment of infections after cesarean delivery to provide anaerobic coverage. Chloramphenicol and tetracycline are alternative choices for antibiotic therapy in nonpregnant women; however, tetracycline-resistant strains of *Bacteroides fragilis* may be emerging. Lincomycin and erythromycin can also be effective in the management of affected women. Tetracyclines and fluoroquinolones should be avoided in breast-feeding women.

591. A 20-year-old gravid 1 at 18 weeks of gestation is hospitalized for intravenous antibiotics for the treatment of acute pyelonephritis. She develops shortness of breath and is found to have tachypnea and decreased oxygen saturation. Chest x-ray reveals pulmonary infiltrates consistent with pulmonary edema. What is the most likely cause of this complication?

- A. Acute renal failure
- B. Allergic reaction
- C. Bacteremia
- D. Endotoxin release

Answer: D

Endotoxin release can cause alveolar injury and lead to pulmonary edema and acute respiratory distress. Endotoxin release can also cause renal dysfunction manifested as increase serum creatinine, but this effect is usually reversible with fluid resuscitation. Uterine contractions and hemolytic anemia are also effects of endotoxin release. Bacteremia can be found in up to 20% of women with pyelonephritis, but it is the endotoxin release that leads to alveolar damage. While allergic reactions to antibiotics can cause respiratory symptoms, they do so by causing bronchoconstriction. Intravenous hydration to ensure adequate urinary output (>50 mL/h) is the mainstay of therapy. Careful monitoring of the input and output of the patient is necessary so that fluid overload will not compound the pulmonary effects of the endotoxin.

592. A pregnant lady 31 weeks gestation presents with a headache, epigastric pain and blurred vision with a BP of 163/89 mm Hg. Urine analysis shows protein 1+. What is the best course of management?

- A. Add oxytocin and vaginal delivery
- B. Emergency cesarean section
- C. IM MgSO₄ with IV labetalol
- D. IV furosemide with IV enalapril

Answer: C

This patient most likely has preeclampsia. The best next step would be IM MgSO₄ with IV labetalol to stabilize her condition. Because she is at 31 weeks of pregnancy her fetus is not ready for the delivery, so delivery vaginal or cesarean is not a right choice. Furosemide and enalapril (ACEi) are contraindicated during pregnancy.

593. A breastfeeding mother who is taken the phenytoin for epilepsy is asking if it not harmful to her baby. Which of the following is a correct recommendation for this woman?

- A. After phenytoin wait 2 hours and then breastfeeding
- B. Continue breastfeeding
- C. Stop breastfeeding
- D. Stop phenytoin and start carbamazepine

Answer: B

EPILEPSY Although anticonvulsants are excreted into breast milk, most mothers who require the use of these drugs can safely breast-feed their infants.^{12,13} Determination of maternal serum drug levels may be a useful adjunct to clinical monitoring of the infant when evaluating the drug exposure of the infant. Phenytoin (Dilantin) and carbamazepine (Tegretol) are compatible with breast-feeding.^{6,8,10,12} Although the AAP considers valproic acid and its derivatives (valproic sodium and divalproex sodium) to be compatible with breast-feeding, some experts recommend against their use during breast-feeding because of the potential for fatal hepatotoxicity in children younger than two years.^{6,10,12} During breast-feeding, anticonvulsants other than phenobarbital and primidone (Mysoline) are preferred because the slow rate of barbiturate metabolism by the infant may cause sedation.^{6,10,12} Infant serum levels may be helpful in monitoring toxicity.
<http://www.aafp.org/afp/2001/0701/p119.html>

594. Which of the following is the drug of choice for treating a patient with premenstrual dysphoric disorder?

- A. Fluoxetine
- B. NSAIDs
- C. Progestins
- D. Vitamin B6

Answer: A

Premenstrual syndrome (PMS)

1. Syndromes seen in women with normal functioning ovaries that precede menses and are characterized by multiple pain, mood, and autonomic symptoms; mood symptoms are more severe in premenstrual dysphoric disorder (PMDD).
2. Most women with menstrual cycles experience some symptoms, but 5% to 10% of women have severe symptoms that interfere with daily life.
3. Risk factors: family history
4. Clinical features: Weight gain, headache, abdominal or pelvic pain, abdominal bloating, change in bowel habits, food cravings, mood lability, depression, fatigue, irritability; breast tenderness, edema, abdominal tenderness, acne
5. Findings precede menses and occur at similar time points in each cycle.
6. Treatment: exercise, vitamin B6, NSAIDs, OCPs, progestins.
7. Selective serotonin reuptake inhibitors (SSRIs) e.g. fluoxetine are first-line treatment for PMS/PMDD.

595. An HIV mother at 34 weeks of gestational pregnancy is on antiviral medication. Her CD count drops from 500 to 300. Which of the following is the best recommendation for her?

- A. Cesarean section if CD4>500
- B. Cesarean section if CD4<350
- C. Vaginal delivery if CD4<350
- D. Vaginal delivery no matter of CD4

Answer: B

In HIV mother always do cesarean section if CD4 <350 or viral load >1000

596. A 36-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Laboratory studies are normal. Which of the following is the most likely diagnosis?

- A. Adenomyosis

- B. Endometriosis
- C. Ovarian cancer
- D. Pelvic congestion syndrome

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

597. A 29-year-old man presents with a 4-day history of fever, headache with retro-orbital pain, severe musculoskeletal and lumbar back pain and rash. The symptoms began 3 days after he returned from a 2-week vacation to the Caribbean islands. The rash developed on his face before spreading over his trunk and extremities. The patient reports receiving appropriate vaccination, including hepatitis A virus vaccine, hepatitis B virus vaccine, and typhoid vaccine. Laboratory tests reveal normal kidney and liver function tests but leukopenia and thrombocytopenia. Which of the following organisms is the most likely cause of this infection?

- A. Dengue virus
- B. Hepatitis A virus
- C. Leptospira
- D. Plasmodium falciparum
- E. Salmonella typhi

Answer: A

All the listed diseases can be acquired during travel, but the severe myalgias, skin rash, and thrombocytopenia are most consistent with dengue. Dengue fever is characterized by fever, severe frontal headache, retro-orbital pain, and severe musculo-skeletal and lumbar back pain. A macular or scarlatiniform rash develops within 3 to 4 days of the illness. Virtually all cases respond to conservative measures with bleeding, hepatitis, and myositis reported as potential rare complications. Dengue hemorrhagic fever is a more severe form of the disease. It is more common among infants and elderly people. It is characterized by increased vascular permeability with hypovolemic shock and thrombocytopenia with spontaneous ecchymoses and mucosal bleeding. Dengue is a mosquito-borne illness. Leptospirosis is a spirochetal disease that has two phases. The bacteremic phase is characterized by sudden onset fevers, rigors, headache, photophobia, and severe myalgias. Four to 30 days later, the immunologic phase ensues and is characterized by conjunctivitis, photophobia, retrobulbar pain, neck stiffness, diffuse lymphadenopathy, hepatosplenomegaly, and aseptic meningitis. The most severe form is called Weil disease; it is associated with up to 40% mortality and is characterized by high direct bilirubin and mild elevation in alkaline phosphatase and transaminase values, combined with a high creatine phosphokinase. Malaria is a parasitic disease usually caused by *P. falciparum*. Patients present with influenza-like symptoms, jaundice, and in its most severe forms with obtundation and confusion. Hepatitis A causes markedly elevated transaminase values and jaundice. *S. typhi* causes typhoid fever. Patients present with influenza-like illness with abdominal discomfort and constipation. Mild, bloody diarrhea could develop in some cases. The patient might develop small rose-colored macules called "rose spots" on the trunk, but thrombocytopenia is not a common feature of typhoid fever.

598. Which of the following medications is considered safe during pregnancy?

- A. Lisinopril
- B. Methyldopa
- C. Tetracyclines
- D. Valproic acid

Answer: B

Tetracyclines may cause permanent yellow-gray-brown discoloration of the teeth and enamel hypoplasia. The use of tetracycline during pregnancy is generally not recommended, especially during the last half of pregnancy.

Angiotensin-converting-enzyme inhibitor (e.g enalapril , lisinopril) are contraindicated in pregnancy as they can cause renal failure ,fetal growth restriction, oligohydramnios, pulmonary hypoplasia,and skeletal abnormalities if administered in the second or third trimester.

Valproic acid and carbamazepine can cause Neural tube defects

Methyldopa is a drug of first choice for control of mild to moderate hypertension in pregnancy.

599. A postpartum lady comes to you at 20 days postpartum complaining of yellowish odorless vaginal discharge and the cervix is pink to red color. Her pregnancy was normal without any complications. Which of the following is the best next step for her?

- A. Bacterioscopic analysis
- B. Colposcopy
- C. Reassurance
- D. The NAAT test

Answer: C

In the first few days, the uterine discharge (lochia) appears red (lochia rubra), owing to the presence of erythrocytes. After 3 to 4 days, the lochia becomes paler (lochiaserosa), and by the 10th day, it assumes a white or yellow-white color (lochia alba).Reference :4th year lecture

600. A pregnant with past history of depression is on paroxetine for a long time. She is asking the physician if she can use this medication or not while she is pregnant. What you have to tell her?

- A. It is not safe because the risk of bipolar disorder
- B. It is not safe because the risk of cardiac congenital malformation
- C. It is not safe because the risk of preeclampsia
- D. It is safe

Answer: B

The antidepressant Paxil (paroxetine) may cause fetal cardiac malformations, and the drug should be shunned if possible in pregnancy, recommended an advisory committee of the American College of Obstetricians and Gynecologists.

Reference: <http://www.medpagetoday.com/obgyn/pregnancy/4611>

601. Which of the following is not a feature of preeclampsia?

- A. Edema
- B. Elevated blood pressure
- C. Proteinuria
- D. Seizures

Answer: D

1. Preeclampsia is new-onset hypertension and proteinuria after 20 wk gestation.
2. Eclampsia is unexplained generalized seizures in patients with preeclampsia.
3. Diagnosis is clinical and by urine protein measurement.
4. Treatment is usually with IV Mg sulfate and delivery at term.
5. The classic preeclamptic triad includes elevated blood pressure, proteinuria, and edema. More recently, edema has been removed as part of the criteria.
6. Seizures are the distinguishing component of eclampsia

602. A 55-year-old male comes to the doctor with diarrhea. He just returned from a trip to South Africa, where he developed foul-smelling stools, abdominal cramps and bloating. His temperature is 37 C , blood pressure is 102/68 mm Hg, and pulse is 90/min. Physical examination is unremarkable. Which of the following is the most likely diagnosis?

- A. Amebiasis
- B. Cryptosporidiosis
- C. Giardiasis
- D. Salmonella

Answer: C

1. **Giardiasis** is infection with the flagellated protozoan *Giardia duodenalis* (*G. lamblia*, *G. intestinalis*).
2. Infection can be asymptomatic or cause symptoms ranging from intermittent flatulence to chronic malabsorption.
3. The most common symptoms are foul-smelling stools, fatty stools, bloating, flatulence, nausea, malaise, and abdominal cramps.
4. Places where giardiasis is widespread include: sub-Saharan Africa all the countries south of the Sahara desert, such as South Africa, Gambia and Kenya
5. **Transmission** can also occur by ingestion of contaminated food and by direct person-to-person contact, especially in mental institutions and day care centers or between sex partners.
6. The major source of giardiasis is waterborne transmission, including via fresh-appearing mountain streams and poorly filtered municipal water supplies.
7. **Diagnosis** *Giardia* is best diagnosed with an ELISA stool antigen test. A single stool antigen test has 90% sensitivity.
8. **Treatment** is with metronidazole, tinidazole, or nitazoxanide or, during pregnancy, paromomycin.
9. Empiric treatment should also be given with a course of **metronidazole**.

Prevention requires

1. Appropriate public water treatment
2. Hygienic food preparation
3. Appropriate fecal-oral hygiene

603. A pregnant woman who has a child with down syndrome. She's concerned about having another child with the Down syndrome. What is the best test to rule out down syndrome in the second trimester?

- A. Amniotic fluid sample
- B. Biophysical profile
- C. Chorionic villous sampling
- D. Triple investigation

Answer: A

Second-trimester screening tests include: the triple investigation is done between 15- 20 weeks. Its sensitivity is about 65% for trisomy. Patients with a positive screen should be offered for ultrasound or amniocentesis for confirmation. The most accurate test for Down syndrome is amniotic fluid sample after amniocentesis. Chorionic villous sampling is performed in the first trimester. A biophysical profile is not used for detecting Down syndrome. References: Toronto Notes and American Family Physician Journals <http://www.aafp.org/aafp/2007/0901/p712.html>

604. A pregnant woman has urinary tract infection. Which of the following antibiotics is contraindicated for this woman?

- A. Amoxicillin
- B. Clindamycin
- C. Nitrofurantoin
- D. Trimethoprim

Answer: D

Some antibiotics should not be used during pregnancy, because of their effects on the fetus.

These include the following:

- Tetracyclines (adverse effects on fetal teeth and bones and congenital defects)
- Trimethoprim in the first trimester (facial defects and cardiac abnormalities)
- Chloramphenicol (gray syndrome)

Sulfonamides in the third trimester (hemolytic anemia in mothers with glucose-6-phosphate dehydrogenase [G6PD] deficiency, jaundice, and kernicterus)

Antibiotics generally considered safe during pregnancy: Amoxicillin, Ampicillin, Clindamycin, Erythromycin, Penicillin and Nitrofurantoin.

Source: <http://emedicine.medscape.com/article/452604-treatment>

605. Which of the following medications is the initial therapy for a pregnant mother with essential hypertension?

- A. Furosemide
- B. Lisinopril
- C. Losartan
- D. Methyldopa

Answer: D

Hypertension is the most common medical problem encountered during pregnancy.

Hypertension during pregnancy can be classified into 4 categories :

1. **Gestational hypertension** : High blood pressure first detected after 20 weeks of gestation in the absence of proteinuria or other diagnostic features of preeclampsia.
2. **Chronic hypertension** : High blood pressure (SBP=140 mmHg , DBP= mmHg) which is present before the 20th week of pregnancy, or persists longer than 12 weeks postpartum.
3. **Preeclampsia-eclampsia**
4. **Preeclampsia superimposed on chronic hypertension**

Antihypertensive during pregnancy

First Line :

1. Methyldopa
2. Beta blockers (IV labetalol : considered first-line medications for the management of acute-onset , labetalol should be avoided in women with asthma, heart disease, or congestive heart failure)
3. Hydralazine (IV Hydralazine : considered first-line medications for the management of acute-onset). Calcium channel blockers (e.g nifedipine)

Second-line

Thiazide diuretics

Contraindicated

1. ACE inhibitors e.g lisinopril
2. Furosemide ARB e.g losartan
3. Aldosterone blockers

606. Triad of ascites, pleural effusion, and ovarian mass. What is the most likely tumor?

- A. Epithelial tumors
- B. Germ cell tumors
- C. Sarcoma
- D. Sex cord stromal tumors

Answer: D

Meigs syndrome is defined as the triad of ascites, pleural effusion, and ovarian mass. Meigs syndrome is caused by benign sex cord-stromal tumour. Meigs syndrome t resolves after resection of the tumor.

<http://emedicine.medscape.com/article/255450-overview>

607. Which of the following conditions is a contraindication to breastfeeding?

- A. Active untreated TB
- B. Hepatitis B-positive mothers
- C. Hepatitis C-positive mothers
- D. Smoking

Answer: A

The following are considered definitive contraindications to breastfeeding:

1. Active untreated TB
2. Maternal HIV infection
3. Herpetic breast lesions
4. Varicella infection <5 days before or 2 days after delivery
5. Chemotherapy
6. Undergoing radiation therapies
7. Active abuse of alcohol or drugs
8. An infant diagnosed with galactosemia (galactose 1-phosphate uridytransferase deficiency)

Hepatitis C is not a contraindication for breastfeeding, but reconsider if nipples are cracked or bleeding.

608. A 38-year-old G3P2 at 40 weeks gestation presents to labor and delivery with gross rupture of membranes occurring 1 hour prior to arrival. The patient is having contraction every 3 to 4 minutes on the external tocometer, and each contraction lasts 60 seconds. The fetal heart rate tracing is 120 beats per minute with accelerations and no decelerations. The patient has a history of rapid vaginal deliveries, and her largest baby was 3200 g. On cervical examination she is 5 cm dilated and completely effaced, with the vertex at -2 station. The estimated fetal weight is 3300 g. The patient is in a lot of pain and requesting medication. Which of the following is the most appropriate method of pain control for this patient?

- A. Epidural analgesia
- B. Intramuscular Meperidine
- C. Perineal block
- D. Pudendal block

Answer: A

The most appropriate modality for pain control in this patient is administration of an epidural analgesia. An epidural block provides relief from the pain of uterine contractions and delivery. It is accomplished by injecting a local anesthetic agent into the epidural space at the level of the lumbar intervertebral space. An indwelling catheter can be left in place to provide continuous infusion of an anesthetic agent throughout labor and delivery via a volumetric pump. In this patient, intramuscular narcotics such as meperidine or morphine would not be preferred because these agents can cause respiratory depression in the newborn if delivery is imminent. A pudendal block involves local infiltration of the pudendal nerve, which provides anesthesia to the perineum for delivery but no pain relief for uterine contractions. A local perineal block refers to infusing a local anesthetic to the area of an episiotomy. The inhalation of anesthetic gases (general anesthesia) is reserved primarily for situations involving emergent cesarean sections and difficult deliveries. All anesthetic agents that depress the maternal CNS cross the placenta and affect the fetus. In addition, a major complication of general anesthesia is maternal aspiration, which can result in fatal aspiration pneumonitis.

609. A 66-year-old G6P6 woman presents to her obstetrician after having a three day history of increased pelvic pressure and a "bulge" that is felt in her vagina when she coughs. Additionally, she has had a recent worsening of lower back pain. Which of the following is the most likely diagnosis in this woman?

- A. Cystocele
- B. Meningocele
- C. Stress incontinence
- D. Utero vaginal prolapse

Answer: D

Uterine prolapse is a form of female genital prolapse. It is also called pelvic organ prolapse or prolapse of the uterus (womb). Risk factors for uterine prolapse include pregnancy, childbirth, chronic increases in intra-abdominal pressure such as lifting, coughing or straining, connective tissue conditions, and damage to or weakness of the muscles. Treatment may be conservative or surgical and should be based upon patient symptoms and preference.

610. A pregnant woman developed a flu symptoms 24 hours ago. Which of the following is the best treatment for her?

- A. Acyclovir
- B. Ganciclovir
- C. Interferon
- D. Oseltamivir

Answer: D

Oseltamivir is preferred for treatment of pregnant women. Pregnant women are recommended to receive the same antiviral dosing as non-pregnant persons. It is best to start antiviral medications within the first 48 hours of developing symptoms, but antivirals can also be used after this time period. A 75-mg capsule of oseltamivir (Tamiflu) twice per day for 5 days is the recommended first choice antiviral.

<http://www.cdc.gov/flu/professionals/antivirals/antiviral-dosage.htm>

<https://medlineplus.gov/ency/article/007443.htm>

<https://www.nlm.nih.gov/medlineplus/ency/article/007443.htm>

611. A healthy 20-year-old G1P0 presents for her first OB visit at 10 weeks gestational age. She denies any significant medical history both personally and in her family. Which of the following tests is not part of the recommended first trimester blood testing for this patient?

- A. Blood type and screen
- B. Complete blood count (CBC)

- C. Glucose challenge test
- D. Hepatitis B surface antigen
- E. Screening for human immunodeficiency virus (HIV)

Answer: C

A 1-hour glucose challenge test should be performed between 24 and 28 weeks for women at risk for gestational diabetes. It is recommended that all women undergo tests for hepatitis B, HIV, type and screen, and CBC at the first prenatal visit.

612. An 18-year-old married woman comes to the emergency room with complaints of severe right lower quadrant abdominal pain for 4 hours which is associated with some vaginal bleeding. She is sexually active. She does not use contraception. She has a history of PID in the past. Her last period was two months ago. A vaginal ultrasound is performed and showed a mass in the right adnexa. Which of the following is the most likely diagnosis in this patient?

- A. Appendicitis
- B. Pyelonephritis
- C. Renal colic
- D. Ruptured ectopic pregnancy

Answer: D

Approach a woman of reproductive age presenting with abdominal pain as a ruptured ectopic pregnancy until proven otherwise. Proceed as follows: First step: pregnancy test and a transvaginal ultrasound showing an empty uterus. Second step: Confirm with a serial hCG without appropriate hCG doubling. Reference: First Aid USMLE Step 2 CK 2014, page 342

613. A 23-year-old female presents with difficulty becoming pregnant. She and her husband have been trying to conceive for 3 months, but have been unsuccessful. She reports menarche at age 14 and has had regular periods since then. She has also had a pelvic inflammatory disorder, treated successfully with antibiotics. Which of the following is the best step for this patient?

- A. Prolactin level
- B. Reassurance and tell her to try at least for 12 months
- C. Semen analysis of her husband

D. TSH, T4

Answer: B

Infertility is an inability to conceive after 1 year of unprotected sex in the absence of any known causes of infertility or after 6 months if the woman is > 35 years of age or in couples with known risk factors for infertility. This woman has only 3 months of unprotected intercourse, so reassurance is the best next step for her.

614. An 18-year-old girl comes with no menstrual cycle for 2 months. Her previous menses were regular. She states that she is not sexually active. Which of the following is best next step for diagnosis in this girl?

- A. Prolactin level
- B. TSH, T4 level
- C. Ultrasonography
- D. Urinary b-hCG

Answer: D

Explanation: The initial laboratory evaluation (after ruling out pregnancy) for women with secondary amenorrhea should include follicle-stimulating hormone (FSH), serum PRL, and thyroid-stimulating hormone (TSH) to test for POI, hyperprolactinemia, and thyroid disease, respectively.

615. A 31-year-old female patient comes for a medical consultation. She did Pap smear every 3 years for 9 years and all of them were normal. The last Pap smear shows Low-grade squamous intraepithelial lesion. Which of the following is the best next step for this woman?

- A. Colposcopy
- B. HPV test
- C. Loop electrosurgical excision procedure
- D. Repeat Pap smear in 3 years

Answer: A

Low-grade squamous intraepithelial lesions (LSIL): ≤ 21 years of age: Same as ASC-US. > 21 years of age: Immediate colposcopy. Reference: First Aid USMLE Step 2 CK 2014, page 382

616. A primipara is in labor and an episiotomy is about to be cut. Which of the following compared with a midline episiotomy is an advantage of mediolateral episiotomy?

- A. Ease of repair
- B. Fewer breakdowns
- C. Less blood loss
- D. Less dyspareunia
- E. Less extension of the incision

Answer: C

Midline episiotomies are easier to fix and have a smaller incidence of surgical breakdown, less pain, and lower blood loss. The incidence of dyspareunia is somewhat less. However, the incidence of extensions of the incision to include the rectum is considerably higher than with mediolateral episiotomies. Regardless of technique, attention to hemostasis and anatomic restoration is the key element of a technically appropriate repair.

617. Which of the following is the daily requirement of iron during pregnancy?

- A. 1 g/day
- B. 15 mg/day
- C. 35 ng/day
- D. 5 mg/day

Answer: B

14.7 mg/day (requirement of iron)with 30 mg to 60 mg of elemental iron (dose)
http://www.who.int/elena/titles/guidance_summaries/daily_iron_pregnancy/

618. A 35-year-old G3P3 presents to your office 3 weeks after an uncomplicated vaginal delivery. She has been successfully breast-feeding. She complains of chills and a fever to 38.3°C (101°F) at home. She states that she feels like she has flu, but denies any sick contacts. She has no medical problems or prior surgeries. The patient denies any medicine allergies. On examination she has a low-grade temperature of 38°C

(100.4°F) and generally appears in no distress. Head, ear, throat, lung, cardiac, abdominal, and pelvic examinations are within normal limits. A triangular area of erythema is located in the upper outer quadrant of the left breast. The area is tender to palpation. No masses are felt and no axillary lymphadenopathy is noted. Which of the following is the best option for treatment of this patient?

- A. Admission to the hospital for intravenous antibiotics
- B. Bromocriptine to suppress milk production
- C. Incision and drainage
- D. Oral dicloxacillin for 7 to 10 days
- E. Oral erythromycin for 7 to 10 days

Answer: D

Puerperal mastitis may be subacute, but is often characterized by chills, fever, and tachycardia. If undiagnosed, it may progress to suppurative mastitis with abscess formation that requires drainage. The most common offending organism is *Staphylococcus aureus*, which is probably transmitted from the infant's nose and throat. A culture of the breast milk should be done prior to initiation of antibiotic therapy. Dicloxacillin, a penicillinase-resistant antibiotic, is the initial treatment of choice. In penicillin-allergic patients, erythromycin is recommended. Treatment should last for 7 to 10 days. If a mass is palpable, an abscess should be suspected. Incision and drainage is recommended for a breast abscess. Milk production should not be suppressed and the patient should continue to breast-feed on the affected breast; if it is too painful she may pump. After antibiotic therapy is initiated, the patient should be reevaluated to ensure improvement.

619. Which of the following would be the best next step in patient with postpartum hemorrhage?

- A. Ergotamine and RBC transfusion
- B. Fundal massage and oxytocin
- C. Methergine
- D. Misoprostol

Answer: B

Detailed stepwise management protocol has been introduced by the California Maternity Quality Care Collaborative. It describes 4 stages of obstetrical hemorrhage after childbirth and its application reduces maternal mortality. Stage 0: normal - treated with fundal massage and oxytocin. Stage 1: more than normal bleeding - establish large-bore intravenous access, assemble personnel, increase oxytocin, consider use of methergine, perform fundal massage, prepare 2 units of packed red blood cells. Stage 2: bleeding continues - check coagulation status, assemble response team, move to the operating room, place intrauterine balloon, administer additional uterotonics (misoprostol, carboprost tromethamine), consider: uterine artery embolization, dilatation and curettage, and laparotomy with uterine compression stitches or hysterectomy. Stage 3: bleeding continues - activate massive transfusion protocol, mobilize additional personnel, recheck laboratory tests, perform the laparotomy, consider the hysterectomy.

620. Which of the following is the drug of choice for treating a patient with primary dysmenorrhea?

- A. IV estrogen
- B. Levonorgestrol
- C. Nonsteroidal anti-inflammatory drugs
- D. Selective serotonin receptor inhibitors

Answer: C

1. Dysmenorrhea is uterine pain around the time of menses. Pain may occur with menses or precede menses by 1 to 3 days. Pain tends to peak 24 h after onset of menses and subside after 2 to 3 days. It is usually sharp but may be cramping, throbbing, or a dull, constant ache; it may radiate to the legs.
2. Primary dysmenorrhea refers to recurrent, crampy lower abdominal pain, along with nausea, vomiting, and diarrhea, that occurs during menstruation in the absence of pelvic pathology.
3. Primary dysmenorrhea can be distinguished from secondary dysmenorrhea via normal physical examination.
4. Non-steroidal antiinflammatory drugs (NSAIDs, i.e., prostaglandin synthetase inhibitors) are the first choice in treatment.

621. A 43-years-old woman underwent bilateral salpingo-oophorectomy and hysterectomy. After some time she comes with complaints of developed hot flashes and night sweats. Which of the following would be the best therapy for this woman?

- A. Continues estrogen and progesterone
- B. Cyclic estrogen and progesterone
- C. Levonorgestrel IUD
- D. Transdermal estrogen patches

Answer: D

Estrogen supplements level out the amount of estrogen in women with menopause (or bilateral salpingo-oophorectomy and hysterectomy), reducing the incidence and severity of hot flashes and night sweats. Estrogen is usually taken with progestin to reduce the risk of developing endometrial cancer. It can be taken by pill, through a vaginal cream or gel, or a patch. There is no need to give additional progesterone because of the woman has the hysterectomy. So the best treatment for her is transdermal estrogen patches.

<https://www.healthline.com/health/menopause/understanding-hot-flashes#hrt>

622. A 24-year-old white woman has a maternal serum α -fetoprotein (MSAFP) level at 17 weeks gestation of 6.0 multiples of the median (MOM). Which of the following is the most appropriate next step in management?

- A. A second MSAFP test
- B. Amniocentes
- C. Amniography
- D. Ultrasound examination

Answer: D

The MSAFP may be performed between 15 and 21 weeks gestation to screen for neural tube defects. The recommended sequence for an MSAFP screening program for 1000 hypothetical patients would normally produce about 30 with an elevated level (2.5 MOM) on the first MSAFP. If the patient does not have an extremely elevated value (ie, the value is < 4.0 MOM) and is relatively early in pregnancy (< 19 weeks gestation), a second MSAFP value is usually drawn. About two-thirds of these patients will have an elevated test. Those who are normal a second time drop back into the normal population. However, if the value is extremely high (≥ 4.0 MOM) or if the gestational age is approaching the limit of options for termination of pregnancy (19+ weeks), most programs then skip a second test and go directly on to ultrasound and possibly amniocentesis. A thorough ultrasound on patients with two elevations or one very high elevation will reveal an obvious reason for the elevation in about 10 of 30 patients. These reasons may include anencephaly, twins, wrong gestational age of the fetus, or fetal demise. The approximately 20 patients with no obvious cause for their elevations should then be offered counseling and amniocentesis. Of patients without a benign explanation, about 5% have an elevated amniotic fluid α -fetoprotein (AFP) and positive acetylcholinesterase. Such patients will have a greater than 99% chance of having a baby with an open neural tube defect or other serious malformations, such as a ventral wall defect. Amniography is an outmoded procedure in which radiopaque dye is injected into the amniotic cavity for the purpose of taking x-rays. Under no circumstances whatsoever should termination of pregnancy be recommended on the basis of MSAFP testing alone. MSAFP is only a screening test used to define who is at risk and requires further testing; it is never diagnostic per se.

623. A 40-year-old female comes to the office with severe pain during intercourse and mild pain during menses for 5 years. On pelvic exam, her uterus is found to be retroverted and during the ultrasound examination, there was found endometrioma. She doesn't want to have children in the future. Which of the following is the definitive management for this patient?

- A. NSAID
- B. Oral contraceptive pills
- C. Removal of the cyst and ablation of the endometriosis lesions
- D. Total abdominal hysterectomy with bilateral salpingo-oophorectomy

Answer: D

This patient has endometritis. Surgery is the only definitive treatment and diagnostic modality. In patients who have completed childbearing with a severe and recurrent disease, the best definitive treatment is total abdominal hysterectomy with bilateral salpingo-oophorectomy.

624. A 43-year-old woman presents to his primary care physician with complaints of raised groupings of lesions on the vagina. During a recent trip, she had sexual relations with some men. Which fo the following is the most likely diagnosis in this woman?

- A. Chlamydia
- B. Condylomata acuminata
- C. Herpes simplex type II
- D. Primary syphilis

Answer: B

Condylomata acuminata or genital warts are symptoms of a contagious sexually transmitted disease caused by some types of human papillomavirus (HPV). Warts are the most easily recognized symptom of genital HPV infection. About 90% of those who contract HPV will not develop genital warts. Genital warts may occur singly but are more often found in clusters. They may be found anywhere in the anal or genital area, and are frequently found on external surfaces of the body, including the penile shaft, scrotum, or labia majora of the vagina. They can also occur on internal surfaces like the opening to the urethra, inside the vagina, on the cervix, or in the anus. They can be as small as 1-5mm in diameter, but can also grow or spread into large masses in the genital or anal area. In some cases they look like small stalks. They may be hard ("keratinized") or soft. Their color can be variable, and sometimes they may bleed. In most cases, there are no symptoms of HPV infection other than the warts themselves. Sometimes warts may cause itching, redness, or discomfort, especially when they occur around the anus. Although they are usually without other physical symptoms, an outbreak of genital warts may cause psychological distress, such as anxiety, in some people.

625. Which of the following is transmitted by the bite of a hard Ixodes tick, where circulating leukocytes are infected and morulae (clusters of microorganisms) form, which can be treated with tetracyclines and

rifamycins?

- A. Bartonella (Rochalimaea) henselae
- B. Chlamydia trachomatis
- C. Coxiella burnetii
- D. Ehrlichia chaffeensis
- E. Rickettsia rickettsii

Answer: D

Ehrlichia is an obligate, intracellular parasite that resembles Rickettsia. Ehrlichia chaffeensis has been linked to human ehrlichiosis, although this infection is primarily seen in animals. The majority of patients with this disease report exposure to ticks. It is thought that I. scapularis carries Ehrlichia, although the Lone Star tick, A. americanum, may also transmit the disease. These gram-negative bacteria infect circulating leukocytes where they multiply within phagocytic vacuoles, forming clusters with inclusion-like appearance. These clusters of ehrlichiae are called morulae (mulberry-like). Diagnosis is confirmed by observing these morulae in white blood cells.

626. A pregnant woman had delayed menstruation for 2 months and now has pain at the bottom of the abdomen and vaginal bloody discharge. During the physical examination, the uterus is increased to seven weeks of pregnancy, and into the vaginal canal, there are some products of conception but some remains inside the uterus and moderate bleeding. Which of the following is the most likely diagnosis?

- A. Complete miscarriage
- B. Missed miscarriage
- C. Threatened miscarriage
- D. incomplete miscarriage

Answer: D

An incomplete miscarriage occurs when some products of conception have been passed, but some remains inside the uterus. However, an increased distance between the uterine walls on transvaginal ultrasonography may also simply be an increased endometrial thickness and/or a polyp. The use of a Doppler ultrasound may be better in confirming the presence of significant retained products of conception in the uterine cavity.

627. Which of the following is a correct definition of recurrent miscarriage?

- A. Four or more consecutive pregnancy losses
- B. Inability to conceive
- C. Three or more consecutive pregnancy losses
- D. Two or more consecutive pregnancy losses

Answer: C

Recurrent miscarriage, habitual abortion, or recurrent pregnancy loss (RPL) is three or more consecutive pregnancy losses. Infertility differs because it is the inability to conceive.

628. A 55-year-old man reported to the emergency room in respiratory distress. His symptoms included muscle pain, congestion, a dry cough, and difficulty breathing. He also was experiencing fever and chills. A chest x-ray showed consolidation of the left lower lobe, and a patchy infiltrate of his right upper lobe. He was given a shot of penicillin and hospitalized. He did not improve on this antibiotic so he was given doxycycline, which allowed for his improvement. It was decided to give doxycycline after his attending physician learned he was a bird enthusiast and had recently received an African parrot that had arrived sick and had died. What was the name of the organism with which the man was infected?

- A. *Chlamydia trachomatis*
- B. *Chlamydophila pneumoniae*
- C. *Chlamydophila psittaci*
- D. *Rickettsia prowazekii*
- E. *Rickettsia rickettsii*

Answer: C

Chlamydomytila psittaci is the cause of psittacosis, which can be transmitted to humans from infected birds. When birds are shipped long distances (eg, from Africa), if they are infected with *C. psittaci*, their immune system begins to wane. If they get sick, the disease is called shipping fever. So when the person who ordered the parrot gets the bird, they may become infected with *C. psittaci* by inhalation. The organism then moves by hematogenous spread to the spleen and liver where the bacteria multiply. The lungs are then infected from the blood stream which induces an inflammatory reaction in the alveoli. Mucous plugs can then be produced in the smaller airways causing difficulty in breathing. *Chlamydomytila pneumoniae* is incorrect because this organism is not spread by birds, and birds also do not spread *Chlamydia trachomatis*. The two *Rickettsia* organisms (*proteuzekii* and *rickettsii*) do not cause respiratory tract infections and are not spread by birds.

629. A 42-year-old woman comes with complaints of generalized maculopapular rash on palms, soles, trunk, limbs. She had a painless ulcer nearly 5 months ago which is healed by itself. Which of the following is the most likely diagnosis in this woman?

- A. Gonorrhea
- B. Primary syphilis
- C. Secondary syphilis
- D. Tertiary syphilis

Answer: C

Secondary syphilis (can resolve spontaneously) - 2-6 mo after initial infection - nonspecific symptoms: malaise, anorexia, headache, diffuse lymphadenopathy - generalized maculopapular rash: palms, soles, trunk, limbs - condylomata lata: anogenital, broad-based fleshy gray lesions - serological tests positive.

630. What is the first step in an investigation for establishing the diagnosis of ectopic pregnancy?

- A. Laparoscopy
- B. MRI
- C. Pelvic ultrasound

D. b-hCG

Answer: A

β -HCG: 85% of ectopic pregnancies demonstrate abnormal β -HCG doubling

Ultrasound: is only definitive if fetal cardiac activity is detected in the tube or uterus

Laparoscopy: for definitive diagnosis/ invasive

MRI is too expensive method.

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631. A 16-year-old primigravida presents to your office at 38 weeks gestation. Her first trimester blood pressure was 100/72. Today it is 170/110 mm Hg and she has 4+ proteinuria on a clean catch specimen of urine. She has significant swelling of her face and extremities. She denies having contractions. Her cervix is closed. The baby is breech by bedside ultrasonography. She says the baby's movements have decreased in the past 24 hours. Which of the following is the best next step in the management of this patient?

- A. Admit her to the hospital for cesarean delivery.
- B. Admit her to the hospital for induction of labor.
- C. Send her home with instructions to stay on strict bed rest until her swelling and blood pressure improve.
- D. Send her to labor and delivery for a BPP.

Answer: A

Hypertension is diagnosed in pregnancy when the resting blood pressure is 140/90 mm Hg or greater. The patient may have a history of chronic hypertension. Gestational hypertension is diagnosed if the patient develops hypertension without proteinuria during the pregnancy. Preeclampsia is diagnosed when the hypertension is associated with proteinuria of greater than 300 mg in a 24 hour collection or persistent 1+ proteinuria in random urine sampling. The treatment for gestational hypertension and preeclampsia is delivery. Select preterm patients may be managed conservatively at home or in the hospital depending upon the severity of the hypertension. BPP testing is useful when following the patient conservatively. Although bed rest may transiently improve elevated blood pressure, a patient at full term should be delivered. Based on the severity of this patient's blood pressure and the 4+ proteinuria, she has severe preeclampsia and she should be delivered. Since this patient's fetus is breech, cesarean delivery rather than induction of labor is the next best step in her management. Diuretics should not be used in the management of preeclampsia, as they deplete the maternal intravascular volume and may compromise placental perfusion.

632. A previously healthy 18-year-old female comes into the acute care clinic with a day history of nausea, vomiting and diarrhea. She admits to currently menstruating and using tampons, which she does not change frequently. Temperature is 103°F (39.4°C), blood pressure 95/60 mmHg and pulse is 108/min. She is ill appearing on exam. Skin evaluation reveals a diffuse macular erythematous rash. Complete blood cell findings included a WBC of 14,000/mm³. Blood cultures were negative. Which of the following is most likely diagnosis in this woman?

- A. Pelvic inflammatory disease
- B. Ritter syndrome
- C. Septic shock
- D. Toxic shock syndrome

Answer: D

Toxic shock syndrome (TSS) is a condition caused by bacterial toxins. Symptoms may include fever, rash, skin peeling, and low blood pressure. There may also be symptoms related to the specific underlying infection such as mastitis, osteomyelitis, necrotising fasciitis, or pneumonia. TSS is caused by bacteria of either the *Streptococcus pyogenes* or *Staphylococcus aureus* type. Streptococcal toxic shock syndrome (STSS) is sometimes referred to as toxic shock-like syndrome (TSLs). The underlying mechanism involves the production of superantigens during an invasive streptococcus infection or a localized staphylococcus infection. Risk factors for the staphylococcal type include the use of very absorbent tampons and skin lesions in young children. Diagnosis is typically based on symptoms.

633. A 26-year-old woman presents to with pelvic pain, dysuria, and a purulent yellowish-green vaginal discharge. A Grams stain of cervical secretions shows gram-negative diplococci. Which of the following is the most likely diagnosis?

- A. Chlamydia
- B. Endometritis
- C. Gonorrhea
- D. Trichomoniasis

Answer: C

1. Gonorrhea is caused by the bacteria *Neisseria gonorrhoeae*. 2. It typically infects epithelia of the urethra, cervix, rectum, pharynx, or conjunctivae, causing irritation or pain and purulent discharge. 3. Dissemination to skin and joints, which is uncommon, causes sores on the skin, fever, and migratory polyarthritis or pauciarticular septic arthritis. 4. Diagnosis is by microscopy, culture, or nucleic acid amplification tests. 5. Gram stain is sensitive and specific for gonorrhea in men with urethral discharge; gram-negative intracellular diplococci typically are seen. Gram stain is much less accurate for infections of the cervix, pharynx, and rectum and is not recommended for diagnosis at these sites. 6. Several oral or injectable antibiotics can be used, but drug resistance is an increasing problem.

634. A healthy 31-year-old G3P2002 patient presents to the obstetrician's office at 34 weeks gestational age for a routine return visit. She has had an uneventful pregnancy to date. Her baseline blood pressures were 100 to 110/60 to 70 in the first trimester, and she has gained a total of 20 lb so far. During the visit, the patient complains of swelling in both feet and ankles that sometimes causes her feet to ache at the end of the day. Her urine dip indicates trace protein, and her blood pressure in the office is currently 115/75. She denies any other symptoms or complaints. On physical examination, there is pitting edema of both feet and ankles extending to the lower one-half of the legs. There is no calf tenderness. Which of the following is the most appropriate response to the patient's concern?

- A. Admit the patient to Labor and Delivery to rule out preeclampsia.
- B. Prescribe furosemide to relieve the painful swelling.
- C. Reassure the patient that this is a normal finding of pregnancy and no treatment is needed.
- D. Send the patient to the radiology department to have venous Doppler studies done to rule out deep vein thromboses.

Answer: C

Increased fluid retention manifested by pitting edema of the ankles and legs is a normal finding in late pregnancy. During pregnancy, there is a decrease in colloid osmotic pressure and a fall in plasma osmolality. Moreover, there is an increase in venous pressure created by partial occlusion of the vena cava by the gravid uterus. These physiologic changes contribute to bilateral pedal edema. Diuretics are sometimes given to pregnant women who have chronic hypertension, but should not be given in pregnancy to treat physiologic pedal edema. More commonly, furosemide is used in the acute setting to treat pulmonary edema associated with severe preeclampsia. This patient is not hypertensive and does not have any other signs or symptoms of preeclampsia and therefore does not need to be admitted for a further workup. Trace protein in the urine is common in normal pregnancies and is not of concern. Doppler studies of the lower extremities are not indicated in this patient since the history and examination (specifically, the lack of calf tenderness) are consistent with physiologic edema. The normal swelling detected in pregnancy is not prevented by a low-sodium diet or improved with a lower intake of salt.

635. Why postmenopausal women develop osteoporosis?

- A. Decrease Estrogen
- B. Decrease Progesterone

- C. Increase Androgen
- D. Increase FSH

Answer: A

Estrogen deficiency can lead to excessive bone resorption accompanied by inadequate bone formation. In the absence of estrogen, T cells promote osteoclast recruitment, differentiation, and prolonged survival via IL-1, IL-6, and tumor necrosis factor (TNF)-alpha.

636. A 14 years female comes to the office with a 6-months history of lower and mid-abdominal pain. The pain is sharp and radiates to the back and upper thigh. The pain usually begins with the onset of menses and lasts for 2-4 days. Physical examination of abdomen and pelvis is normal and secondary sex development is normal too. Which of the following is the most likely diagnosis?

- A. Factitious disorder
- B. Malingering
- C. Primary dysmenorrhea
- D. Secondary dysmenorrhea

Answer: C

Primary dysmenorrhea refers to the presence of recurrent, crampy, lower abdominal pain that occurs during menses in the absence of evident disease that could explain these symptoms. Secondary dysmenorrhea has the same clinical features but occurs in women with a disorder that could explain their symptoms, such as endometriosis, adenomyosis, or uterine fibroids.

637. A 21- years-old female has a negative Pap smear. Which of the following would be the right period for the next Pap smear?

- A. 12 months
- B. 18 months
- C. 3 years
- D. 6 months

Answer: C

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test). Beginning at age 30, the preferred way to screen is with a Pap test combined with an HPV test every 5 years. This is called co-testing and should continue until age 65. Another reasonable option for women 30 to 65 is to get tested every 3 years with just the Pap test.

<https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

638. A 22-year-old G1 at 14 weeks gestation presents to your office with a history of recent exposure to her 3-year-old nephew who had a rubella viral infection. In which time period does maternal infection with rubella virus carry the greatest risk for congenital rubella syndrome in the fetus?

- A. First trimester
- B. Preconception
- C. Second trimester
- D. Third trimester

Answer: A

Rubella is one of the most teratogenic agents known. Risk of congenital rubella infection in the fetus is 80% when the mother has a rubella infection in the first trimester. This risk decreases to 25% by the end of the second trimester.

639. A 37-year-old G3P2 presents to your office for her first OB visit at 10 weeks gestation. She has a history of Graves' disease and has been maintained on propylthiouracil (PTU) as treatment for her hyperthyroidism. She is currently euthyroid but asks you if her condition poses any problems for the pregnancy. Which of the following statements should be included in your counseling session with the patient?

- A. Hyperthyroid state associated with higher incidence of preeclampsia and heart failure
- B. Need to stop PTU because of adverse effect of leukopenia
- C. The treatment of thyroid storm is drops of Lugol iodide

- D. There is high incidence of development Thyroid storm in untreated women with Graves' disease

Answer: A

Hyperthyroidism in pregnancy is treated with thioamides, namely propylthiouracil (PTU) and methimazole. These medications block thyroid hormone synthesis. Both cross the placenta, and fetal hypothyroidism and goiter have been associated with maternal thioamide treatment for Graves' disease. Transient leukopenia occurs in about 10% of patients taking thioamide drugs, but does not necessitate stopping the medication. Women who remain hyperthyroid despite therapy have a higher incidence of preeclampsia and heart failure. Thyroid storm occurs only rarely in untreated women with Graves' disease. This emergent medical condition involves thyrotoxicosis, which is characterized by fever, tachycardia, altered mental status, vomiting, diarrhea, and cardiac arrhythmia. The treatment of thyroid storm involves administering multiple medications to suppress thyroid function.

640. A 21-year-old woman presents to your office for her well-woman examination. She has recently become sexually active and desires an effective contraceptive method. She has no medical problems, but family history is significant for breast cancer in a maternal aunt at the age of 42. She is worried about getting cancer from taking birth control pills. You discuss with her the risks and benefits of contraceptive pills. You tell her that which of the following neoplasms has been associated with the use of oral contraceptives?

- A. Breast cancer
- B. Hepatic adenoma
- C. Hepatic cancer
- D. Ovarian cancer

Answer: B

Beginning with high-dose combination contraceptive pills used more than 30 years ago, pills have been studied extensively for a possible association with neoplasia. There is only scant evidence from this experience that use of oral contraceptives increases the risk of any type of cancer. A slightly higher risk of cervical carcinoma was observed in some studies of users of oral contraceptives. These studies were not controlled, however, for confounding variables such as multiple partners or age at onset of sexual intercourse, and it is generally believed now that any increased risk in contraceptive pill users would be attributable to these other factors and not to the steroids themselves. Although, the risk of developing benign liver adenomas (which if rupture can cause life-threatening hemorrhage) is increased somewhat in users of oral contraceptives, the risk of hepatic carcinoma is not increased.

641. A pregnant woman at 36 weeks of pregnancy was in the hospital for a pre-eclampsia of severe degree. Before the pregnancy, she had not any problems. Her blood pressure is 180/120 mm Hg, and the protein in the urine - 6.0 g / l. Suddenly there was a twitching of mimic muscles, loss of consciousness. Despite intensive therapy for 3 hours, the pregnant woman did not return to consciousness. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Epilepsy
- C. Hypertensive crisis
- D. Hypertensive encephalopathy

Answer: A

Eclampsia is the onset of seizures (convulsions) in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there is high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery. Most often it is during the second half of pregnancy. The seizures are of the tonic-clonic type and typically last about a minute. Following the seizure there is typically either a period of confusion or coma. Complications include aspiration pneumonia, cerebral hemorrhage, kidney failure, and cardiac arrest. Pre-eclampsia and eclampsia are part of a larger group of conditions known as hypertensive disorders of pregnancy.

642. A 20-year-old female comes with complaints of no menstrual period for 3 months. Her menarche was at 13 years-old. She had a regular monthly menstrual cycles for 28 days and menstruation lasts for 5-6 days. Gynecological examination revealed no alterations in the uterus. Which of the following is the best next step for this woman?

- A. Prolactin
- B. Reassurance
- C. TSH
- D. b-hCG

Answer: D

pregnancy test (B-hCG)

Primary Amenorrhea

No menses by age 13 in absence of 2o sexual characteristics or no menses by age 15 with 2o sexual characteristics or no menses 2 yr after thelarche

Secondary Amenorrhea

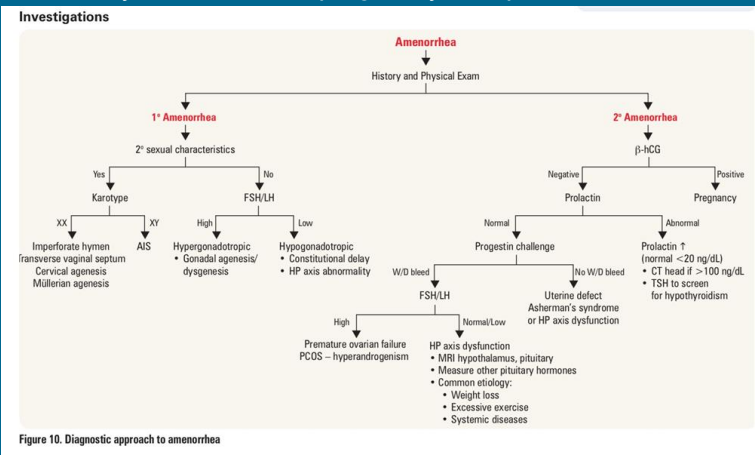
No menses for >6 mo or 3 cycles after documented menarche

Oligomenorrhea

Episodic vaginal bleeding occurring at intervals >35 d

After being confirmed as secondary amenorrhea through history and exam, a pregnancy test should be done and if negative continue next investigations.

*secondary amenorrhea is pregnancy until proven otherwise.



References: Toronto notes 2017, GY10, PG. 493

643. A 32-year-old woman with a history of migraine headaches on prophylactic propranolol experiences a severe anaphylactic reaction following a sting from a yellow jacket. She is treated successfully with parenteral epinephrine and is dismissed from the hospital. What is the best recommendation for prevention of recurrent hospitalizations?

- A. Avoid exposure to bees as well as wasps.
- B. Carry an epinephrine self-injector (Epi-pen) with her during outdoor activities.
- C. Discontinue beta-blockers.
- D. Pursue desensitization injections against Hymenoptera species.

Answer: B

Approximately 40 deaths per year occur as a result of Hymenoptera stings. Additional fatalities undoubtedly occur and are unknowingly attributed to other causes. Both atopic and nonatopic persons experience reactions to insect stings. The responses range from large local reactions with erythema and swelling at the sting site to acute anaphylaxis. Although each of the first four recommendations might be beneficial, the most important measure is for this patient to keep an epinephrine self-injector with her during activities where Hymenoptera species might be encountered. These devices are very effective when used properly. Desensitization injections are probably effective, although they carry some risk of anaphylaxis (albeit in a controlled setting). Beta-blockers increase the risk of anaphylaxis and impair response to epinephrine if an allergic reaction should occur. The venom of honeybees (apids) cross-reacts moderately with that of wasps (vespids), although the latter are the most dangerous species. Antihistamines have not been shown to block anaphylaxis. Numerous mediators other than histamine are present in mast cell granules. The majority of fatal reactions occur in adults, with most persons having had no previous reaction to a stinging insect. Reactions can occur with the first sting and usually begin within 15 minutes. Enzymes, biogenic amines, and peptides present in the insects' venom are the sensitizing allergens. Venoms are commercially available for testing and treatment. Venom immunotherapy is indicated for patients with a history of sting anaphylaxis and positive skin tests. Although epinephrine self-injectors can be lifesaving; they are contraindicated in the presence of ischemic heart disease.

644. A 29-year-old G2P1 at 40 weeks is in active labor. Her cervix is 5 cm dilated, completely effaced, and the vertex is at 0 station. She is on oxytocin to augment her labor and she has just received an epidural for pain

management. The nurse calls you to the room because the fetal heart rate has been in the 70 seconds for the past 3 minutes. The contraction pattern is noted to be every 3 minutes, each lasting 60 seconds, with return to normal tone in between contractions. The patient's vital signs are blood pressure 90/40 mm Hg, pulse 105 beats per minute, respiratory rate 18 breaths per minute, and temperature 36.1°C (97.6°F). On repeat cervical examination, the vertex is well applied to the cervix and the patient remains 5 cm dilated and at 0 station, and no vaginal bleeding is noted. Which of the following is the most likely cause for the deceleration?

- A. Cord prolapse
- B. Epidural analgesia
- C. Pitocin
- D. Placental abruption

Answer: B

Prolonged fetal heart rate decelerations are isolated decelerations lasting 2 minutes or longer, but less than 10 minutes from onset to return to baseline. Epidural analgesia is a very common cause of fetal heart rate decelerations because it can be associated with maternal hypotension and decreased placental perfusion. Therefore, maternal blood pressure should always be noted in cases of fetal heart rate decelerations. If maternal blood pressure is abnormally low, ephedrine can be given to correct the hypotension. Because an umbilical cord prolapse can be associated with decelerations, the patient should undergo a cervical examination. In addition, the Pitocin infusion should be stopped because hyperstimulation of the uterus can be a cause of fetal hypoxia. The patient should be turned to the left lateral position to decrease uterine pressure on the great vessels and enhance uteroplacental flow. Supplemental oxygen should be given to the patient in an attempt to increase oxygen to the fetus. Only if the heart rate deceleration persists is a cesarean section performed.

645. A pregnant lady at 32 weeks of pregnancy has fallen from the stairs. Suddenly she developed vaginal bleeding, lower abdominal pain. Her blood pressure is 90/70 mmHg. Which of the following is the most likely diagnosis?

- A. Placenta abruption
- B. Placenta previa
- C. Stillbirth
- D. Threatened abortion

Answer: A

Placental abruption is when the placenta separates early from the uterus, in other words separates before childbirth. It occurs most commonly around 25 weeks of pregnancy. Symptoms may include vaginal bleeding, lower abdominal pain, and dangerously low blood pressure. Complications for the mother can include disseminated intravascular coagulopathy and kidney failure. Complications for the baby can include fetal distress, low birthweight, preterm delivery, and stillbirth.

646. A 23-years-old woman comes with symptoms of white, cheesy, vaginal discharge. She is smoking 1 pack of cigarettes per day. She has 4-5 intercourses per week with her husband protected by condoms. She uses vaginal douche every week. Microscopy with KOH shows pseudohyphae. Which of the following is the biggest risk factor for the development of this disease?

- A. Condom use
- B. Number of intercourse
- C. Smoking
- D. Vaginal douche

Answer: D

This woman has Candidiasis. Douching is the practice of washing or flushing the vagina with water or other fluids. The American College of Obstetricians and Gynecologists (ACOG) recommends that women avoid the practice of vaginal douching. Douching can disrupt the balance of bacteria in the vagina and can alter the normal pH of the vagina. Changes in the composition of the bacteria that normally reside within the vagina can lead to an increased risk of vaginal infections such as yeast infections (Candidiasis). Douching can also cause the spread of harmful bacteria further up into the reproductive tract if an infection is already present in the vagina.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2567125/>

https://www.medicinenet.com/vaginal_douche_douching/article.htm

647. A 35-year-old woman underwent a routine examination and have been found 10*11 mm raised irregular mass on the lateral aspect of the cervix. Which of the following is the best next step for this woman?

- A. Excision
- B. Investigate for human papillomavirus
- C. Reassure her and wait for pap smear result
- D. Taking biopsy from the mass

Answer: D

This patient most likely has cervical cancer. Th best next step is to take the biopsy of the mass to confirm the diagnosis.

648. Which of the following is true regarding oral contraceptive?

- A. Increase the risk of ectopic pregnancy
- B. Increase the risk of endometrial carcinoma
- C. Increase the risk of ovarian carcinoma
- D. Increase the risk of thromboembolism

Answer: D

Increase the risk of thromboembolism

<u>Serious side effects of Oral contraceptive pills (OCPs)</u>	<u>OCPs are protective against</u>
Cardiovascular events/myocardial infarction	Ovarian cysts and cancer
Venous thromoboembolism	Endometrial cancer
Cerebrovascular events/stroke	Benign breast disease
Benign hepatic tumors	Dysmenorrhea (anemia)
Hypertension	

649. Which of the following viruses can cross the placenta?

- A. Adenovirus
- B. Influenza
- C. Mumps
- D. Rubella

Answer: D

Diseases that can cross the placenta: All TORCH:

Toxoplasmosis

Others (syphilis, Erythema Infectiosum (Fifth Disease), Hepatitis B)

Rubella

CMV, Chicken pox, CMV

HSV, HIV

Reference: Toronto Notes Agree to this answer and revised -rubella can cross placenta, TORCH can cross -HBV cannot:

<http://www.who.int/csr/disease/hepatitis/whocdscsrlyo20022/en/index1.html>

650. A 34-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Laboratory studies are normal. Which of the following is the most likely diagnosis?

- A. Adenomyosis
- B. Endometriosis
- C. Ovarian cancer
- D. Pelvic congestion syndrome

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity
2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst").
3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus.
4. Laparoscopy is the gold standard for the diagnosis of endometriosis.
5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal.
6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

651. A 18 years female comes to the office with a 6-months history of lower and mid-abdominal pain. The pain is sharp and radiates to the back and upper thigh. The pain usually begins with the onset of menses and

lasts for 2-4 days. Physical examination of abdomen and pelvis is normal and secondary sex development is normal too. Which of the following is the most likely diagnosis?

- A. Factitious disorder
- B. Munchausen syndrome
- C. Primary dysmenorrhea
- D. Secondary dysmenorrhea

Answer: C

Primary dysmenorrhea refers to the presence of recurrent, crampy, lower abdominal pain that occurs during menses in the absence of evident disease that could explain these symptoms. Secondary dysmenorrhea has the same clinical features but occurs in women with a disorder that could explain their symptoms, such as endometriosis, adenomyosis, or uterine fibroids.

652. Which of the following is not an epithelial ovarian tumor?

- A. Brenner tumor
- B. Mucinous cystadenocarcinoma
- C. Mucinous cystadenoma
- D. Serous cystadenocarcinoma
- E. Teratoma

Answer: E

Epithelial tumors: all are positive for CA-125, CEA

Serous cystadenoma #1 common benign - bilateral Lined by ciliated cells -

Serous cystadenocarcinoma #1 common malignant; bilateral 33%

Psammoma bodies on histology

Mucinous cystadenoma - Large, benign, ovarian mass lined by mucous-

secreting cells (endocervix-like) Mucinous cystadenocarcinoma - Large malignant mass that can cause pseudomyxoma peritonei (mucinous material in the peritoneal space from seeding)

Brenner tumor - Benign tumor that has transitional-like epithelium (bladder-like)

653. Which of the following is the most appropriate management of postpartum hemorrhage?

- A. Dilatation and curettage
- B. Hysterectomy
- C. Oxytocin infusion
- D. Uterine artery embolization

Answer: C

1. Postpartum hemorrhage (PPH) is an obstetrical emergency. It is a major cause of maternal morbidity.
2. Postpartum Hemorrhage is defined as blood loss of more than 500 mL following vaginal delivery or more than 1000 mL following cesarean delivery.
3. Uterine atony is the most common cause of postpartum hemorrhage.

Treatment:

1. Treatment depends on etiology of the hemorrhage.
2. Uterine massage; if that fails, give oxytocin.
3. If hemorrhage persists, consider packing, surgical procedures, and transfusion of blood products.

654. A patient is diagnosed with carcinoma of the breast. Which of the following is the most important prognostic factor in the treatment of this disease?

- A. Age at diagnosis
- B. Axillary node metastases
- C. Estrogen receptors on the tumor cells
- D. Size of tumor

Answer: B

Recognition of the high risk associated with axillary node metastases for early death and poor 5-year survival has led to the use of postsurgical adjuvant chemotherapy in these patients. Patients who have estrogen- or progesterone-receptive tumors (ie, receptor present or receptor-positive) are particular candidates for this adjuvant therapy, as 60% of estrogen-positive tumors will respond to hormonal therapy. Age and size of the tumor are certainly factors of importance, but they are secondary to the presence or absence of axillary metastases.

655. A 66-year-old woman presents to the physician with vaginal dryness, dyspareunia, dysuria and increased urinary frequency. Examination shows scarce pubic. Which of the following is the best treatment for this woman?

- A. Estrogen cream
- B. Progesterone cream
- C. Surgical treatment
- D. Topical Metronidazole

Answer: A

1. Menopause is the result of permanent loss of estrogen. Menopause occurs in patients aged 48 to 52. 2. Symptoms of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, dyspareunia and night sweats. 3. Vaginal atrophy (atrophic vaginitis) is characterized by dryness, inflammation, and thinning of the epithelial lining of the vagina and lower urinary tract due to loss of estrogen. 4. Vaginal atrophy presents with vaginal dryness and dysuria, and physical exam findings of pale, dry vaginal mucosa, diminished labial fat pad, and scarce pubic hair. 5. It typically occurs in menopausal women. 6. Atrophic vaginitis is treated with estrogen

656. A female patient with the history of multiple spontaneous abortion and D&C wants to get pregnant. However, she notices that she has amenorrhea since the last D&C. Which of the following is the most likely diagnosis in this woman?

- A. Asherman's Syndrome
- B. Kallman syndrome
- C. Premature ovarian failure
- D. Turner syndrome

Answer: A

"Asherman's Syndrome" is a condition characterized by adhesions and/or fibrosis of the endometrium particularly but can also affect the myometrium. It is often associated with dilation and curettage of the intrauterine cavity. A number of other terms have been used to describe the condition and related conditions including: intrauterine adhesions (IUA), uterine/cervical atresia, traumatic uterine atrophy, sclerotic endometrium, endometrial sclerosis, and intrauterine synechiae.

657. A 32-year-old woman presents to the gynecology clinic with infrequent periods. A hormone profile is done and all of the following are consistent with polycystic ovarian syndrome, apart from :

- A. Decreased LH
- B. Increased androgen level
- C. Low progesterone level
- D. Normal FSH
- E. Normal estradiol

Answer: A

For polycystic ovarian syndrome are typical high LH and androgen level, normal FSH and estradiol and low progesterone level.

658. The mother with blood group A Rh-negative gave birth to her first baby who is AB Rh-positive. Which of the following immunoglobulins should be given to her for prevention of complications during coming pregnancies?

- A. IgA
- B. IgD
- C. IgE
- D. IgG
- E. RhoD Ig

Answer: E

Rh disease is a type of hemolytic disease of the newborn. Most Rh disease can be prevented by treating the mother during pregnancy or promptly (within 72 hours) after childbirth. The mother has an intramuscular injection of anti-Rh antibodies (Rho(D) immune globulin). This is done so that the fetal rhesus D positive erythrocytes are destroyed before the immune system of the mother can discover them and become sensitized. This is passive immunity and the effect of the immunity will wear off after about 4 to 6 weeks (or longer depending on injected dose) as the anti-Rh antibodies gradually decline to zero in the maternal blood.

659. A 32-year-old G3P0030 obese woman comes to your office for a routine gynecologic examination. She is single, but is currently sexually active. She has a history of five sexual partners in the past, and became sexually active at age 15. She has had three first-trimester voluntary

pregnancy terminations. She uses Depo-Provera for birth control, and reports occasionally using condoms. She has a history of genital warts, but denies any prior history of abnormal Pap smears. The patient denies use of any illicit drugs, but admits to smoking about one pack of cigarettes a day. Her physical examination is normal. However, 3 weeks later you receive the results of her Pap smear, which shows a high-grade squamous intraepithelial lesion (HGSIL). Which of the following factors in this patient's history does not increase her risk for cervical dysplasia?

- A. History of genital warts
- B. Multiple sexual partners
- C. Smoking
- D. Use of Depo-Provera
- E. Young age at initiation of sexual activity

Answer: D

The occurrence of cervical squamous dysplasia/carcinoma is caused by infection with the HPV, which is sexually transmitted. HPV causes genital warts as well. Women who begin sexual activity at a young age, have multiple sexual partners, do not use condoms, and have a history of sexually transmitted diseases are at an increased risk for cervical neoplasia. Alterations in immune function (such as in patients with HIV or on immunosuppressive therapy) place a patient at an increased risk of cervical neoplasia. Women who smoke tobacco have an increased risk of developing cervical neoplasia. There is no known increased risk of cervical dysplasia caused by the use of DepoProvera. However, some studies support an association of increased risk of cervical adenocarcinoma with oral contraceptive use.

660. A 30-year-old gravida 1 at 6 weeks by last menstrual period presents for prenatal care. She has had type 1 diabetes since the age of 14. She also reports a history of diabetic nephropathy and proliferative retinopathy. She is concerned about the effects of diabetes on her baby. Which of the following statements about diabetes in pregnancy is true?

- A. Diabetic ketoacidosis is a common complication during the first trimester.
- B. Glycosylated hemoglobin levels are poor predictors of the risk of congenital malformations.
- C. Proliferative retinopathy improves in pregnancy.
- D. Proteinuria over 300 mg/d is associated with increased risk of preeclampsia.

Answer: B

Maternal diabetes mellitus can affect a pregnant woman and her fetus in many ways. Diabetic women with renal involvement have increased risk of preeclampsia and indicated preterm delivery. Diabetic ketoacidosis is a serious complication that can develop with hyperemesis gravidarum in the first trimester but it only affects about 1% of diabetic pregnancies. Type 1 diabetics have a 5% incidence of major congenital malformations, but the risk of chromosomal abnormalities is not increased. Pregnancy is associated with progression of proliferative retinopathy. Optimal glycemic control prior to pregnancy is the best way to minimize congenital malformations and glycosylated hemoglobin is a useful way to assess control. The higher the value in the first trimester the higher the risk of malformations.

661. A 43-year-old woman presents to your office with heavy bleeding. She is a nonsmoker. Which of the following is the treatment of choice for dysfunctional uterine bleeding?

- A. Dilation and curettage
- B. Hysterectomy
- C. Oral contraceptive pill
- D. Reassurance

Answer: C

1. Dysfunctional uterine bleeding (DUB) refers to heavy vaginal bleeding that occurs in the absence of structural or organic disease. 2. After menarche and before menopause it is considered physiologic. 3. DUB is the most common cause of abnormal uterine bleeding. 4. Due to its benign nature, it is a diagnosis of exclusion. 5. The most common cause of dysfunctional uterine bleeding (DUB) in adolescent women is anovulation. 6. DUB is treated with cyclic progestin therapy from day 14 to 25 of each cycle or by daily combination OCPs. 7. Cases not controlled by hormonal therapy may undergo endometrial ablation or hysterectomy. 8. In cases of uncontrolled bleeding, IV estrogen is the drug of choice for, to suppress the bleeding, and to ensure cardiovascular stability.

662. The 30-year-old patient was delivered to the hospital with complaints of abdominal pain, menses delay for 3 weeks and short-term loss of consciousness. She has vaginal bleeding. The test for chorionic gonadotrophin is positive. Which of the following is the best next step for this woman?

- A. Culdocentesis
- B. Dilation and curettage
- C. Laparoscopy
- D. Transvaginal ultrasonography

Answer: D

Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock. With very rare exceptions the fetus is unable to survive. An ultrasound showing a gestational sac with fetal heart in the fallopian tube has a very high specificity of ectopic pregnancy. Transvaginal ultrasonography has a sensitivity of at least 90% for ectopic pregnancy.

663. A 30-year-old pregnant woman complains to her physician because of feeling very tired during her pregnancy. A complete blood count with differential reveals a hematocrit of 30%, with hypersegmented neutrophils and large, hypochromic red cells. Deficiency of which of the following would be most likely to produce these findings?

- A. Ascorbic acid
- B. Calcium
- C. Copper
- D. Folate
- E. Iron

Answer: D

Folate deficiency is a low level of folic acid and derivatives in the body. Also known as vitamin B9, folate is involved in adenosine, guanine, and thymidine synthesis (part of DNA synthesis). Signs of folate deficiency are often subtle. Anemia is a late finding in folate deficiency and folate deficiency anemia is the term given to this medical condition. It is characterized by the appearance of large-sized, abnormal red blood cells (megaloblasts), which form when there are inadequate stores of folic acid within the body.

664. A 33-year old woman at 34 weeks of pregnancy comes to the office with complaints that over the last 2 days she has a headache, dizziness, feelings of heaviness in the field of the head, and visual disturbances. Her vital signs are blood pressure 160/120 mm Hg, heart rate - 88 beats per minute. Her urinalysis shows proteinuria - up to 3.2 g / l. Which of the following is the most likely diagnosis?

- A. Acute disturbance of cerebral circulation
- B. Eclampsia
- C. Hypertensive crisis
- D. Severe preeclampsia

Answer: D

Pre-eclampsia (PE) is a disorder of pregnancy characterized by the onset of high blood pressure and often a significant amount of protein in the urine. The condition begins after 20 weeks of pregnancy. In severe disease there may be red blood cell breakdown, a low blood platelet count, impaired liver function, kidney dysfunction, swelling, shortness of breath due to fluid in the lungs, or visual disturbances. Pre-eclampsia increases the risk of poor outcomes for both the mother and the baby. If left untreated, it may result in seizures at which point it is known as eclampsia.

665. A woman has a diagnosed prolactinoma. Her MRI of pituitary shows a mass 0,3 cm in a diameter. Which of the following is the best treatment for this woman?

- A. Bromocriptine
- B. Cabergoline
- C. Radiation treatment

D. Surgical treatment

Answer: B

A prolactinoma is a benign tumor (adenoma) of the pituitary gland that produces a hormone called prolactin. It is the most common type of functioning pituitary tumor. Bromocriptine is associated with side-effects such as nausea and dizziness and hypotension in patients with already low blood pressure readings. Cabergoline is also associated with side-effects such as nausea and dizziness, but these may be less common and less severe than with bromocriptine. Surgery should be considered if medical therapy cannot be tolerated or if it fails to reduce prolactin levels, restore normal reproduction and pituitary function, and reduce tumor size. If medical therapy is only partially successful, this therapy should continue, possibly combined with surgery or radiation treatment.

666. Which of the following is the most common cause of secondary amenorrhea in women less than 50?

- A. Breastfeeding
- B. Menopause
- C. Polycystic ovary syndrome
- D. Pregnancy

Answer: D

The causes of secondary amenorrhea: Pregnancy (most common cause) Anovulation Menopause Premature menopause Polycystic ovary syndrome (PCO-S) Drug-induced Breastfeeding Celiac disease

667. A 20-year-old G0, LMP 1 week ago, presents to your gynecology clinic complaining of a mass in her left breast that she discovered during routine breast self-examination in the shower. When you perform a breast examination on her, you palpate a 2-cm firm, nontender mass in the upper inner quadrant of the left breast that is smooth, well-circumscribed, and mobile. You do not detect any skin changes, nipple discharge, or axillary lymphadenopathy. Which of the following is the most likely diagnosis?

- A. Breast carcinoma
- B. Fat necrosis
- C. Fibroadenoma
- D. Fibrocystic breast change

Answer: C

This patient's breast mass is characteristic of a fibroadenoma. Fibroadenomas are the second most common benign breast disorder, after fibrocystic changes. Fibroadenomas are characterized by the presence of a firm, solid, well-circumscribed, nontender, freely mobile mass and have an average diameter of 2.5 cm. These lesions most commonly occur in adolescents and women in their twenties. Fibrocystic changes occur in about one-third to one-half of reproductive-age women and represent an exaggerated response of the breast tissue to hormones. Patients with fibrocystic changes complain of bilateral mastalgia and breast engorgement preceding menses. On physical examination, diffuse bilateral nodularity is typically encountered. Cystosarcoma phyllodes are rare fibroepithelial tumors that constitute 1% of breast malignancies. These rapidly growing tumors are the most frequent breast sarcoma and occur most frequently in women in the fifth decade of life. Trauma to the breast can result in fat necrosis. Women with fat necrosis commonly present to the physician with a firm, tender mass that is surrounded by ecchymosis. Occasional skin retraction can occur, making this lesion difficult to differentiate from cancer. It is unlikely that this patient who presents in her twenties has breast cancer. Fine-needle aspiration or excisional biopsy may be performed to rule out the rare chance of malignancy, but breast cancer is not the most likely diagnosis based on the patient's age and lack of any other breast changes consistent with carcinoma (such as a fixed mass, skin retraction, or lymphadenopathy).

668. A 62-year-old female comes to the clinic with a plaque in labia majora, which is itching, easier bruising, cracking, tearing and peeling. Which of the following is the most likely diagnosis?

- A. Basal cell carcinoma
- B. Lichen sclerosis
- C. Lupus pernio
- D. Melanoma

Answer: B

Lichen sclerosus (LS) is a skin disease of unknown cause, commonly appearing as whitish patches on the genitals, which can affect any body part of any person but has a strong preference for the genitals (penis, vulva) and is also known as balanitis xerotica obliterans (BXO) when it affects the penis. Lichen sclerosus is not contagious. There is a well-documented increase of skin cancer risk in LS, potentially improvable with treatment. LS in adult age is normally incurable, but improvable with treatment, and often gets progressively worse. White patches on the LS body area, itching, pain, pain during sex (in genital LS), easier bruising, cracking, tearing and peeling, and hyperkeratosis are common symptoms in both men and women. In women, the condition most commonly occurs on the vulva and around the anus with ivory-white elevations that may be flat and glistening.

669. A 21-year-old G2P2 calls her physician 7 days postpartum because she is concerned that she is still bleeding from the vagina. She describes the bleeding as light pink to bright red and less heavy than the first few days postdelivery. She denies fever or any cramping pain. On examination she is afebrile and has an appropriately sized, nontender uterus. The vagina contains about 10 cc of old, dark blood. The cervix is closed. Which of the following is the most appropriate treatment?

- A. Antibiotics for endometritis
- B. High-dose oral estrogen for placental subinvolution
- C. Oxytocin for uterine atony
- D. Reassurance

Answer: D

Bloody lochia can persist for up to 2 weeks without indicating an underlying pathology; however, if bleeding continues beyond 2 weeks, it may indicate placental site subinvolution, retention of small placental fragments, or both. At this point, appropriate diagnostic and therapeutic measures should be initiated. The physician should first estimate the blood loss and then perform a pelvic examination in search of uterine subinvolution or tenderness. Excessive bleeding or tenderness should lead the physician to suspect retained placental fragments or endometritis. A larger than expected but otherwise asymptomatic uterus supports the diagnosis of subinvolution.

670. A 68-year-old patient comes to the office with complaints about a tumor in her left mammary gland. During the physical examination in the upper internal quadrant of the left mammary gland, there is a neoplasm up to 2,5 cm in diameter, dense, uneven, painless on palpation. Regional lymph nodes are not enlarged. Which of the following is the most likely diagnosis?

- A. Cancer
- B. Fibroadenoma
- C. Lipoma
- D. Mastopathy

Answer: A

Breast cancer is cancer that develops from breast tissue.[8] Signs of breast cancer may include a lump in the breast, a change in breast shape, dimpling of the skin, fluid coming from the nipple, or a red scaly patch of skin. In those with distant spread of the disease, there may be bone pain, swollen lymph nodes, shortness of breath, or yellow skin. The first noticeable symptom of breast cancer is typically a lump that feels different from the rest of the breast tissue. More than 80% of breast cancer cases are discovered when the woman feels a lump. The earliest breast cancers are detected by a mammogram. Lumps found in lymph nodes located in the armpits can also indicate breast cancer.

671. What is the drug of choice for eclamptic seizure?

- A. Chlorpromazine
- B. Diazepam
- C. Magnesium Sulfate
- D. Phenytoin

Answer: C

Convulsions are prevented and treated using magnesium sulfate. Magnesium sulfate results in better outcomes than diazepam, phenytoin or a combination of chlorpromazine, promethazine and pethidine.

672. A 37-year-old G4P2 presents to your office for new OB visit at 8 weeks. In a prior pregnancy, the fetus had multiple congenital anomalies consistent with trisomy 18, and the baby died shortly after birth. The

mother is worried that the current pregnancy will end the same way, and she wants testing performed to see whether this baby is affected. Which of the following can be used for chromosome analysis of the fetus?

- A. Biophysical profile
- B. Chorionic villus sampling
- C. Fetal umbilical Doppler velocimetry
- D. Maternal serum screen

Answer: B

Fetal tissue for chromosome analysis can be obtained via amniocentesis, chorionic villus sampling (CVS), percutaneous umbilical blood sampling, or direct biopsy of fetal muscle or skin. Amniocentesis, which is typically done from 15 to 20 weeks, involves obtaining a sample of amniotic fluid, which contains fetal fibroblasts. Chorionic villus sampling, which is best done from 10 to 13 weeks, involves taking a biopsy of the placenta. In the case of PUBS, the umbilical vein is punctured under direct ultrasound guidance near the placental origin and blood is obtained for genetic analysis. Doppler velocimetry is an ultrasound technique used to examine blood flow through the umbilical artery. IUGR has been associated with abnormal umbilical artery Doppler velocimetry. Therefore, this technique is used with other modalities such as BPP and NSTS to monitor fetal well-being.

673. A 20-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the treatment of choice for this patient?

- A. Azithromycin for the patient and her sexual partner.
- B. Fluconazole for the patient only.
- C. Oral metronidazole for the patient and all her sexual partners.
- D. Oral metronidazole for the patient.

Answer: C

Trichomoniasis (trich) is an infectious disease caused by the parasite *Trichomonas vaginalis*. About 70% of women and men do not have symptoms when infected. When symptoms do occur they typically begin 5 to 28 days after exposure. Symptoms can include itching in the genital area, a bad smelling thin vaginal discharge, burning with urination, and pain with sex. Having trichomoniasis increases the risk of getting HIV/AIDS. It may also cause complications during pregnancy. Transmission :Sexual (cannot exist outside human because it cannot form cysts)

Treatment: Metronidazole for the patient and all sexual partners to avoid recurrence.

674. A pregnant woman who is 7 weeks from her LMP comes in to the office for her first prenatal visit. Her previous pregnancy ended in a missed abortion in the first trimester. The patient therefore is very anxious about the well-being of this pregnancy. Which of the following modalities will allow you to best document fetal heart action?

- A. Fetal Doppler stethoscope
- B. Fetoscope
- C. Regular stethoscope
- D. Transvaginal sonogram

Answer: D

Vaginal ultrasound can detect fetal heart action as early as 5 weeks of amenorrhea. With a traditional, nonelectric fetal stethoscope, heart tones can be heard at 19 to 20 weeks gestational age. With a Doppler stethoscope, fetal heart tones can be usually be detected by 10 weeks gestational age.

675. A 18-year-old woman comes to the emergency room and complains of moderate right lower quadrant abdominal pain for 3-hours with mild vaginal bleeding. Her last period was 5 weeks ago. A vaginal ultrasound is performed and showed a 2cm mass in the right adnexa without heart rates. The patient is hemodynamically stable. Which of the following would be the best next step for this patient?

- A. Laparoscopy
- B. Laprotomy

- C. Medical
- D. Observe

Answer: C

This woman most likely has an ectopic pregnancy. The best next step for this woman is to give her methotrexate. Indications for methotrexate-induced abortion are fetus <3,5 cm in diameter, no heart sounds, b-hCG less than 6000 and no B9 supplementation. Contraindication for methotrexate: are immunodeficiency, hepatotoxicity, more than a 3,5cm fetus and auscultated fetal heart rate.

676. Which of the following is the most important risk factor for fibroid?

- A. African race
- B. Age >50 years old
- C. Family history
- D. Smoking
- E. multipara

Answer: B

African race is associated with a two- to threefold increased risk. Age is associated with a 10-fold increased risk when those aged 40 years and over or 50 years and over are compared with those aged 20-30 years. Family history is associated with a threefold increased risk. Time since last birth is associated with a two- to threefold increase among those who gave birth more than 5 years ago. Higher parity is associated with a reduced risk (80% risk reduction when those with three or more deliveries are compared with nulliparous women). Uterine fibroids are more common among premenopausal women (three to five times higher risk than in postmenopausal women). Smoking lowers the risk when the BMI is under 22.2 kg/m² (by one third compared with same-weight nonsmokers) Current use of oral or injectable contraception is associated with a two thirds reduced risk. Women with hypertension are more likely to be diagnosed with fibroids (fivefold increase). The intake of food additives and soybean increases the risk (soybean is associated with 2.5-fold increased risk).

677. An 18-year-old G1 at 8 weeks gestation complains of nausea and vomiting over the past week occurring on a daily basis. Nausea and emesis are a common symptom in early pregnancy. Which of the following signs or symptoms would indicate a more serious diagnosis of hyperemesis gravidarum?

- A. Hypokalemia
- B. Hypothyroidism
- C. Proteinuria
- D. Weight gain

Answer: A

Hyperemesis gravidarum is intractable vomiting of pregnancy and is associated with disturbed nutrition. Early signs of the disorder include weight loss (up to 5% of body weight) and ketonuria. Electrolyte abnormalities can also be present. Because vomiting causes potassium loss, electrocardiographic evidence of potassium depletion, such as inverted T waves and prolonged QT and PR intervals, is usually a later finding. Jaundice also is a later finding and is probably caused by fatty infiltration of the liver; occasionally, acute hepatic necrosis occurs. Metabolic acidosis is rare. Hypokalemic nephropathy with isosthenuria may occur late. Hypoproteinemia also may result, caused by poor diet as well as by albuminuria. Patients who have hyperemesis gravidarum are best treated (if the disease is early in its course) with parenteral fluids and electrolytes, sedation, rest, vitamins, and antiemetics if necessary. In some cases, isolation of the patient is necessary. Very slow reinstitution of oral feeding is permitted after dehydration and electrolyte disturbances are corrected. Therapeutic abortion may be necessary in rare instances; however, the disease usually improves spontaneously as pregnancy progresses.

678. A healthy 30-year-old G3P2 presents to the obstetrician's office at 34 weeks for a routine prenatal visit. She has a history of two prior cesarean sections (low-transverse). The first cesarean section was performed secondary to fetal malpresentation (footling breech). The patient then had an elective repeat cesarean section for her second pregnancy. This pregnancy, the patient has had an uncomplicated prenatal course. She tells her physician that she would like to undergo a trial of labor during this pregnancy. However, the patient is interested in permanent sterilization and wonders if it would be better to undergo another scheduled cesarean section so she can have a bilateral tubal ligation performed at the same time. Which of the following statements is true and should be relayed to the patient?

- A. Desire for sterilization is an indication for an elective cesarean section
- B. High doses of oxytocin is needed for this woman
- C. She doesn't have any contraindication for vaginal delivery
- D. There is no increased risk of uterine rupture in this woman

Answer: C

The desire for sterilization is not an indication for an elective repeat cesarean section. The morbidity of repeat cesarean section is greater than that of vaginal birth with postpartum tubal ligation. The risk of uterine rupture in a woman who undergoes a trial of labor and has had one prior cesarean section is approximately 0.6%. With a history of two prior cesarean sections, the risk of uterine rupture is about 1.8%. The risk of uterine rupture in someone who has had a classical or T-shaped uterine incision is 4 to 6%. The success rate for a trial of labor is generally about 60 to 80%. Success rates are higher when the original cesarean section was performed for breech rather than dystocia. Induction of labor should not be performed without an obstetrical indication (e.g., preeclampsia); some studies suggest that high doses of oxytocin infusion increase a patient's risk of uterine rupture

679. An infertile couple presents to you for evaluation. A semen analysis from the husband is ordered. The sample of 2.5 cc contains 25 million sperm per mL; 65% of the sperm show normal morphology; 20% of the sperm show progressive forward mobility. You should tell the couple which of the following?

- A. The sample is abnormal because the percentage of sperm with normal morphology is too low.
- B. The sample is abnormal owing to a low percentage of forwardly mobile sperm.
- C. The sample is normal and should not be a factor in the couple's infertility.
- D. The sample is normal, but of no clinical value because of the low sample volume.

Answer: D

Because of the variability in semen specimens from the same person, preferably three specimens should be evaluated over the course of an investigation for infertility. A normal semen analysis will demonstrate at least 20 million sperm per milliliter, over 60% of the sperm with a normal shape, a volume of between 2 and 6 mL, and at least 50% of the sperm with progressive forward motility.

680. A 33-year-old pregnant woman is in her twenty-third week of pregnancy. She has lost four consecutive normally formed fetuses after 20 weeks gestation. During the physical examination, her uterine cervix is 4 cm dilated and membranes are intact. The diagnosis cervical incompetence is made. Which of the following is not a risk factor for development this pathology in this woman?

- A. Diethylstilbestrol exposure
- B. History of conization
- C. Polycystic ovary syndrome
- D. Previous preterm premature rupture of membranes

Answer: C

Cervical incompetence (or cervical insufficiency) is a medical condition of pregnancy in which the cervix begins to dilate (widen) and efface (thin) before the pregnancy has reached term. Definitions of cervical incompetence vary, but one that is frequently used is the inability of the uterine cervix to retain a pregnancy in the absence of the signs and symptoms of clinical contractions, or labor, or both in the second trimester. Cervical incompetence may cause miscarriage or preterm birth during the second and third trimesters. Another sign of cervical incompetence is funneling at the internal orifice of the uterus, which is a dilation of the cervical canal at this location. Risk factors for premature birth or stillbirth due to cervical incompetence include: diagnosis of cervical incompetence in a previous pregnancy, previous preterm premature rupture of membranes, history of conization (cervical biopsy), diethylstilbestrol exposure, which can cause anatomical defects, and uterine anomalies. Repeated procedures (such as mechanical dilation, especially during late pregnancy) appear to create a risk. Additionally, any significant trauma to the cervix can weaken the tissues involved.

681. Man got a bee sting then his wife trying to look for the epinephrine what it going to inhibit?

- A. Cross reactivity with the cardiac
- B. Widespread histamine release.
- C. inhibit immunocomplex formation
- D. leukotriene release from macrophages

Answer: B

Epinephrine maintains blood pressure (by agonist alpha and beta-adrenergic receptors), antagonizes the effects of the released mediators, and inhibits further release of mediators. Here in the link below the same Q (Q10) but there is extra choice and it is the Right Answer: <https://quizlet.com/8362963/immuno-block-4-practice-exam-flash-cards/> Reference: http://www.medscape.com/viewarticle/578750_2

682. After an uneventful labor and delivery, an infant is born at 32 weeks' gestation weighing 1500 g (3 lb, 5 oz). Respiratory difficulty develops immediately after birth and increases in intensity thereafter. At 6 hours of age, the child's respiratory rate is 60 breaths per minute. Examination reveals grunting, intercostal retraction, nasal flaring, and marked cyanosis in room air. Auscultation reveals poor air movement. Physiologic abnormalities compatible with these data include which of the following?

- A. Decreased lung compliance, increased lung volume, left-to-right shunt of blood
- B. Decreased lung compliance, reduced lung volume, left-to-right shunt of blood
- C. Decreased lung compliance, reduced lung volume, right-to-left shunt of blood.
- D. Normal lung compliance, reduced lung volume, left-to-right shunt of blood

Answer: B

For the child described in the question, prematurity and the clinical picture presented make the diagnosis of hyaline membrane disease (HMD, also known as infant respiratory distress syndrome or primary surfactant deficiency) likely. HMD is caused by surfactant deficiency, and the incidence is increased with decreasing gestational age and birth weight. In this disease, lung compliance is reduced; lung volume is also reduced, and a significant right-to-left shunt of blood can occur. Some of the shunt can result from a patent ductus arteriosus or foramen ovale, and some can be due to shunting within the lung. Minute ventilation is higher than normal, and affected infants must work harder in order to sustain adequate respiration.

683. A woman came to the clinic with her 6 weeks old baby complaining of irritability, weight loss, and inability to sleep. Which of the following is the most likely diagnosis in this patient?

- A. Hashimoto thyroiditis
- B. Hyperthyroidism
- C. Postpartum depression
- D. Postpartum thyroiditis

Answer: D

Postpartum thyroiditis is a phenomenon observed following pregnancy and may involve hyperthyroidism, hypothyroidism or the two sequentially. It affects about 5% of all women within a year after giving birth. The first phase is typically hyperthyroidism. Then, the thyroid either returns to normal or a woman develops hypothyroidism. Of those women who experience hypothyroidism associated with postpartum thyroiditis, one in five will develop permanent hypothyroidism requiring lifelong treatment.

684. A 48-year-old woman presents with intermenstrual bleeding for two months and episodes of bleeding occurring any time in the cycle. There is no associated pain. Which of the following is least likely the cause of her symptoms?

- A. Atrophic vaginitis.
- B. Cervical malignancy
- C. Endocervical polyp
- D. Endometrial polyp
- E. Teratoma

Answer: E

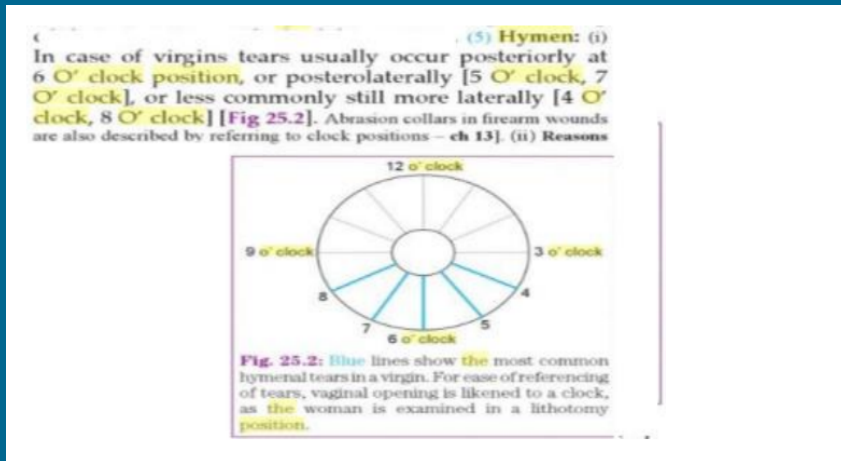
Teratomas of germ cell origin usually are found in adult men and women, but they may also be found in children and infants. Teratomas of embryonal origin are most often found in babies at birth, in young children, and, since the advent of ultrasound imaging, in fetuses. The most commonly diagnosed fetal teratomas are sacrococcygeal teratoma (Altman types I, II, and III) and cervical (neck) teratoma. Because these teratomas project from the fetal body into the surrounding amniotic fluid, they can be seen during routine prenatal ultrasound exams. Teratomas within the fetal body are less easily seen with ultrasound; for these, MRI of the pregnant uterus is more informative. Teratomas are not dangerous for the fetus unless there is either a mass effect or a large amount of blood flow through the tumor (known as vascular steal). The mass effect frequently consists of obstruction of normal passage of fluids from surrounding organs. The vascular steal can place a strain on the growing heart of the fetus, even resulting in heart failure, and thus must be monitored by fetal echocardiography. Teratomas can cause an autoimmune illness called Anti N-methyl-D-aspartate (NMDA) Receptor Encephalitis. After surgery, there is a risk of regrowth in place, or in nearby organs. Teratomas are not associated with vaginal bleeding.

685. At which of the following would be the hymen tear in vaginally sexually abused the child?

- A. 12 o'clock
- B. 2 o'clock
- C. 6 o'clock
- D. 9 o'clock

Answer: C

Blunt penetrating trauma to the vaginal orifice produces a characteristic pattern of injury; bruising, lacerations and/or abrasions are typically seen between the 4 and 8 o'clock positions of the hymen.



Reference (1) : WHO -Child sexual abuse

http://www.who.int/violence_injury_prevention/resources/publications/ennes_chap7.pdf

686. A 26-year-old G1P1 is now postoperative day (POD) 6 after a low transverse cesarean delivery for arrest of active phase. On POD 2, the patient developed a fever of 39°C (102.2°F) and was noted to have uterine tenderness and foul-smelling lochia. She was started on broad-spectrum antibiotic coverage for endometritis. The patient states she feels fine now and wants to go home, but continues to spike fevers each evening. Her lung, breast, and cardiac examinations are normal. Her abdomen is nontender with firm, nontender uterus below the umbilicus. On pelvic examination her uterus is appropriately enlarged, but nontender. The adnexa are nontender without masses. Her lochia is normal. Her white blood cell count is 12 with a normal differential. Blood, sputum, and urine cultures are all negative for growth after 3 days. Her chest x-ray is negative. Which of the following statements is true regarding this patient's condition?

- A. Antimicrobial therapy is usually ineffective.
- B. Fever spikes are rare.
- C. It usually involves both the iliofemoral and ovarian veins.
- D. Vena caval thrombosis may accompany either ovarian or iliofemoral thrombophlebitis.

Answer: B

The patient described has septic pelvic thrombophlebitis (SPT). Septic pelvic thrombophlebitis may involve either the iliofemoral or the ovarian vein but rarely involves both sites in the same patient. Vena caval thrombosis may follow either ovarian or iliofemoral phlebitis. The clinical presentation is that of a pelvic infection with pain and fever. Following antimicrobial therapy, clinical symptoms usually resolve, but fever spikes may continue. Commonly, patients do not appear clinically ill. The diagnosis is made by computerized tomography (CT) or by magnetic resonance imaging (MRI). Before these diagnostic modalities were available, the heparin challenge test was advocated—lysis of fever after intravenous administration of heparin was accepted as diagnostic for pelvic thrombophlebitis. Heparin administration in addition to antibiotic coverage for SPT does not hasten recovery or improve outcome. Long-term anticoagulation is definitely not recommended.

687. A 43-year-old G2P2 comes to your office complaining of an intermittent right nipple discharge that is bloody. She reports that the discharge is spontaneous and not associated with any nipple pruritus, burning, or discomfort. On physical examination, you do not detect any dominant breast masses or axillary adenopathy. There are no skin changes noted. Which of the following conditions is the most likely cause of this patient's problem?

- A. Breast cancer
- B. Duct ectasia
- C. Fibrocystic breast disease
- D. Intraductal papilloma

Answer: D

Nipple discharge can occur in women with either benign or malignant breast conditions. Approximately 10% to 15% of women with benign breast disease complain of nipple discharge. However, nipple discharge is present in only about 3% of women with breast malignancies. The most worrisome nipple discharges tend to be spontaneous, unilateral, and persistent. The color of nipple discharge does not differentiate benign from malignant breast conditions. The most common breast disorder associated with a bloody nipple discharge is an intraductal papilloma. However, breast carcinoma must always be ruled out in any patient complaining of a bloody nipple discharge. Sanguineous or serosanguineous nipple discharges can also be seen in women with duct ectasia and fibrocystic breast disease. Women with hyperprolactinemia caused by a pituitary adenoma experience bilateral milky white nipple discharges.

688. A 25-year-old primigravid woman is unable to lactate her baby. Her delivery was complicated by vaginal bleeding that required a blood transfusion. Which of the following is the most likely diagnosis?

- A. Berry aneurysm
- B. Sheehan syndrome
- C. Sepsis
- D. Subarachnoid hemorrhage

Answer: B

1. **Sheehan syndrome** is a rare cause of pituitary apoplexy and hypopituitarism.
2. It only occurs in postpartum females who experience large volume haemorrhage and hypovolaemic shock, either during delivery or afterwards.
3. The two most common causes of hypopituitarism in the postpartum period are Sheehan's syndrome and lymphocytic hypophysitis.
4. Patients with Sheehan's syndrome present in the postpartum period with failure to lactate and other features of pituitary hormonal deficiency.
5. Failure to lactate or difficulties with lactation are common initial symptoms of Sheehan syndrome.
6. Pathophysiology: hypovolaemia secondary to postpartum haemorrhage leads to pituitary infarction and necrosis.

Clinical presentation

Pituitary failure

1. may be silent and present with delayed hypopituitarism
2. amenorrhoea
3. adrenal insufficiency
4. hypothyroidism
5. adrenal insufficiency
6. hyponatraemia
7. growth hormone deficiency

Optic chiasm compression

1. visual field loss
2. headache
3. ophthalmoplegia

689. A woman presents with a painful and erythematous right breast. Since the birth of her first son 6 weeks ago, she tried to breastfeed, however, it is really painful. Upon physical exam, there are visible small fissures around the nipple. The breast feels warm and there is a palpable fluctuant mass. Her temperature is 38,6C. Purulent discharge from the nipple is noted. A microscopy of breast milk shows Gram-positive organisms. Which of the following is most likely presents in the organism which causes the disease in this woman?

- A. Coagulase
- B. Ferrochelatase

- C. Oxidase
- D. Streptokinase

Answer: A

This woman most likely has breast abscess. A breast abscess is a collection of pus that develops into the breast with different causes. Some women (approximately 15%) will require antibiotic treatment for infection which is usually caused by bacteria from the skin or the baby's mouth that entering the milk ducts through skin lesions of the nipple or through the opening of the nipple. Infection is usually caused by staphylococcus aureus. S. aureus was differentiated from other staphylococci by the coagulase test.

690. You are advised by the on-call obstetrician that the mother of a baby she has just delivered has chronic hepatitis B (HBsAg-positive). Which of the following is the most appropriate action in managing this infant?

- A. Administer hepatitis B immunoglobulin and hepatitis B vaccine to the infant.
- B. Isolate the infant with enteric precautions.
- C. Screen the infant for HBsAg.
- D. Screen the mother for hepatitis B "e" antigen (HBeAg).

Answer: A

The infant of a mother who is a carrier of hepatitis B surface antigen has a significant risk of acquiring infection. This usually occurs at the time of delivery, but infection can also be acquired during pregnancy and postnatally. A small percentage of infected neonates develop acute icteric hepatitis, but the majority remains asymptomatic. Of these infected asymptomatic infants, 80% or more will develop chronic infection, the long-term consequences of which are chronic liver disease and, possibly, hepatocellular carcinoma. Combined passive-active immunoprophylaxis in the form of hepatitis B immunoglobulin and hepatitis B vaccine affords protection not only from immediate perinatal infection but also from infection that may be acquired as a result of continued exposure in the household of a chronic carrier. Immunization in this infant is indicated regardless of the presence of hepatitis B "e" antigen (HBeAg) in the mother. Although the presence of HBeAg, especially in the absence of antibody to HBeAg, is associated with high rates of transmission to neonates, any woman positive for hepatitis B surface antigen (HBsAg) is potentially infectious. It is not necessary to isolate infants born to carriers of HBsAg, and screening of neonates for HBsAg is not indicated. Testing for HBsAg and anti-HBsAg at least 1 month after the third dose of hepatitis B vaccine will determine the efficacy of these measures. Hepatitis B is currently a reportable disease in the United States. Local health departments frequently track babies born to hepatitis B positive mothers and ensure the child receives appropriate follow-up.

691. A 23-year-old woman presents to your office with the complaint of a red splotchy rash on her chest that occurs during intercourse. It is nonpuritic and painless. She states that it usually resolves within a few minutes to a few hours after intercourse. Which of the following is the most likely cause of the rash?

- A. Allergic reaction to her partner's pheromones
- B. Decreased systolic blood pressure during the plateau phase
- C. Increased estrogen during the excitement phase
- D. Vasocongestion during the excitement phase

Answer: D

The response of women to sexual stimulation is generalized and affects many different organ systems. During the excitement or seduction phase, vasocongestion leads to breast engorgement and the development of a rash on the breasts, chest, and epigastric area, which is called the "sex flush." Heart rate and blood pressure also increase during this phase. Vasocongestion also occurs in the clitoris, labia, and vagina, and a transudative lubricant develops in the vagina. The plateau phase is marked by greater vasocongestion throughout the body and retraction of the clitoris. During the orgasmic phase, the sexual tension is released via muscular contractions throughout the body, but notably in the vagina, anus, and uterus. Changes in hormones such as estrogen are not part of the sexual response.

692. A 22-years-old pregnant woman at 10 weeks of pregnancy is delivered by ambulance because of complaints for pain in the lower abdomen and abundant bloody discharge. Her heart rate is 90 b/min, blood pressure 100/70 mm Hg. Her last ultrasound examination showed the intrauterine fetus. Today there are no findings of fetal in the uterus. Which of the following is the most likely diagnosis in this woman?

- A. Acute appendicitis
- B. Ectopic pregnancy
- C. Ovarian torsion
- D. Spontaneous miscarriage

Answer: D

Miscarriage, also known as spontaneous abortion and pregnancy loss, is the natural death of an embryo or fetus before it is able to survive independently. Some use the cutoff of 20 weeks of gestation, after which fetal death is known as a stillbirth. The most common symptom of a miscarriage is vaginal bleeding with or without pain. Sadness, anxiety and guilt often occur afterwards. Tissue and clot-like material may leave the uterus and pass through and out of the vagina.

693. A female patient presented with green vaginal discharge and pruritus. The pH of vaginal discharge is 5.0. Which of the following is most likely diagnosis in this woman?

- A. Bacterial vaginosis

- B. Candidiasis
- C. Chlamydia trachomatis
- D. Trichomonas

Answer: D

Trichomoniasis is the most common nonviral STD in the world. Many patients (20-50%) are asymptomatic. If discharge is present, it is usually copious and frothy and can be white, gray, yellow, or green

694. A 24-year-old woman comes to the office with complaints of excessive hair growth and abnormal menses. She states that her menses are irregular, and she has a severe acne on her face and shoulders. The ultrasound examination of her ovaries shows a string of pearl appearance. Which of the following is the most likely diagnosis in this patient?

- A. Cushing disease
- B. Hypothyroidism
- C. Polycystic Ovarian Syndrome
- D. Prolactinoma

Answer: C

Polycystic ovarian syndrome (PCOS), recently referred also as hyperandrogenic anovulation, is a chronic anovulation syndrome associated with androgen excess. The classic triad of PCOS is: oligomenorrhea, hirsutism, obesity. In addition to this, patients may have infertility, acne, male pattern balding or biochemically show increased androgen levels. Current recommended sonographic criteria for multifollicular ovarian morphology: 25 or more follicles per ovary (superseding the earlier Rotterdam criteria of 12 or more follicles) 14 increased ovarian size (>10 cc): less sensitive than the follicle number criteria, but has a role when image resolution does not allow accurate follicle count, e.g. transabdominal scanning, older equipment. Other morphological features include: hyperechoic central stroma peripheral location of follicles: which can give a string of pearl appearance follicles of similar size measuring 2-9 mm. The presence of a single PCO is sufficient to provide the diagnosis.

695. A 29-year-old G1P0 presents to the obstetrician's office at 41 weeks gestation. On physical examination, her cervix is 1 centimeter dilated, 0% effaced, firm, and posterior in position. The vertex is presenting at -3

station. Which of the following is the best next step in the management of this patient?

- A. Order biophysical profile testing (BPP) for the same or next day
- B. Schedule the patient for induction of labor at 43 weeks gestation.
- C. Send the patient to the hospital for induction of labor since she has a favorable Bishop score.
- D. Teach the patient to measure fetal kick counts and deliver her if at any time there are less than 20 perceived fetal movements in 3 hours.

Answer: A

Patients at 41 to 42 weeks gestation with good dating criteria and a favorable cervix should undergo induction of labor. If the cervix is unfavorable, fetal well-being should be assessed prior to allowing the pregnancy to continue. Patient self-assessment by measurement of fetal kick counts, NST, contraction stress testing, and biophysical profile (BPP) may be used to assess fetal well-being. The BPP, which assesses the fetal heart rate tracing, fetal tone, fetal breathing, fetal movement and the amniotic fluid level, is the next best step in the management of this patient. Induction of labor is recommended at 42 weeks regardless of the favorability of the cervix because of the increased risk of perinatal morbidity at that gestational age. As noted above, it is not recommended to perform an elective section without a trial of labor because of the risks of major surgery.

696. AIDS patient at 34 weeks of pregnancy and her CD count dropped to 200. Which of the following is the best recommendation for her?

- A. Cesarean section at term
- B. Immediate cesarian section
- C. Immediate vaginal delivery
- D. Vaginal delivery at term

Answer: A

Cesarean delivery before the onset of labor may prevent microtransfusion that occurs with uterine contractions, and avoiding vaginal delivery eliminates exposure to virus in the cervicovaginal secretions and blood at time of delivery. In the same year, ACOG issued an opinion that elective cesarean delivery should be discussed and offered to all pregnant women who were HIV positive at 38 weeks' gestation to avoid the potential risk of spontaneous labor and rupture of membranes. <http://emedicine.medscape.com/article/1385488-overview#a11> <http://www.uptodate.com/contents/hiv-and-pregnancy-beyond-the-basics>

697. Which of the following would be the best next step for the pregnant lady on 33 weeks with herpes lesions on external genitals?

- A. Cesarean section and give valacyclovir
- B. Give acyclovir
- C. Vaginal delivery and give valacyclovir
- D. Wait for 4 weeks and do cesarean section and give acyclovir

Answer: B

Herpes simplex lesions can be treated immediately during pregnancy with acyclovir or valacyclovir. Cesarean section is only applicable when there are active genital lesions during labor. Vaginal delivery is applicable if there are no active herpes lesions on external genitalia during labor.

698. What is the average length of the menstrual cycle?

- A. 25
- B. 28
- C. 30
- D. 35

Answer: B

1. Menstruation is the periodic discharge of blood and sloughed endometrium (collectively called menses or menstrual flow) from the uterus through the vagina. It is caused by the rapid decline in ovarian production of progesterone and estrogen that occurs each cycle in the absence of a pregnancy. Menstruation occurs throughout a woman's reproductive life in the absence of pregnancy.
2. Menopause is the permanent cessation of menses.
3. Average duration of menses is 5 (\pm 2) days. Blood loss per cycle averages 30 mL (normal range, 13 to 80 mL) and is usually greatest on the 2nd day. A saturated pad or tampon absorbs 5 to 15 mL. Menstrual blood does not usually clot (unless bleeding is very heavy), probably because fibrinolysin and other factors inhibit clotting.
4. The median menstrual cycle length is 28 days (usual range, about 25 to 36 days). Generally, variation is maximal and intermenstrual intervals are longest in the years immediately after menarche and immediately before menopause, when ovulation occurs less regularly. The menstrual cycle begins and ends with the first day of menses (day 1).

699. While you are on call at the hospital covering labor and delivery, a 32-year-old G3P2002, who is 35 weeks of gestation, presents complaining of lower back pain. The patient informs you that she had been lifting some heavy boxes while fixing up the baby's nursery. The patient's pregnancy has been complicated by diet-controlled gestational diabetes. She denies any regular uterine contractions, rupture of membranes, vaginal bleeding, or dysuria. She denies any fever, chills, nausea, or emesis. She reports that the baby has been moving normally. She is afebrile and her blood pressure is normal. On physical examination, you note that the patient is obese. Her abdomen is soft and nontender with no palpable contractions or uterine tenderness. No costovertebral angle tenderness can be elicited. On pelvic examination her cervix is long and closed. The external fetal monitor indicates a reactive fetal heart rate strip; there are rare irregular uterine contractions demonstrated on the tocometer. The patient's urinalysis comes back with trace glucose, but is otherwise negative. The patient's most likely diagnosis is which of the following?

- A. Chorioamnionitis
- B. Labor
- C. Musculoskeletal pain
- D. Urinary tract infection

Answer: C

Lower back pain is a common complaint in pregnancy and is reported by about 50% of pregnant women. It is caused by stress placed on the lower spine and associated muscles and ligaments by the gravid uterus, especially in late pregnancy. The pain can be exacerbated with excessive bending and lifting. In addition, obesity predisposes the patient to lower back pain in pregnancy. Treatment options include heat, massage, and analgesia. This patient has no evidence of labor since she is lacking regular uterine contractions and cervical change. Without any urinary symptoms or a urinalysis suggestive of infection, a urinary tract infection is unlikely. The diagnosis of chorioamnionitis does not fit since the patient has intact membranes, no fever, and a nontender uterus. Round ligament pain is characterized by sharp groin pain.

700. A 38-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the treatment of choice for this patient?

- A. IV estrogen
- B. Oral contraceptive
- C. Pelvic muscle exercises
- D. Urethropexy

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

701. A 25-year-old woman in her first pregnancy delivers a 6-lb male infant at 38 weeks. The infant develops fever, vesicular rash, poor feeding, and listlessness at 1 week of age. What is the most likely cause of the infant's signs and symptoms?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Hepatitis B
- D. Herpes simplex

Answer: D

Neonatal herpes infection has three forms: disseminated with involvement of major organs; localized, with involvement confined to the central nervous system; and asymptomatic. A 50% risk of neonatal infection occurs with primary maternal infection, but only 4% to 5% risk with recurrent outbreaks. Postnatal infection can occur through contact with oral and skin lesions. Neonatal infection presentation is nonspecific, with signs and symptoms such as irritability, lethargy, fever, and poor feeding. Less than 50% of infants do not have skin lesions.

702. Which of the following is the best and the safest treatment for cord prolapse?

- A. Cesarean section
- B. Forceps
- C. Vacuum
- D. Vaginal delivery

Answer: A

The gold Standard obstetrical management of cord prolapse in the setting of a viable pregnancy typically involves immediate delivery by the quickest and safest route possible. This usually requires a cesarean section, especially if the woman is in early labor and to avoid fetal compromise or death from compression of the cord. However, vaginal delivery may be a reasonable option in select cases when delivery is imminent. Reference : Uptodate

703. Which of the following is the most common congenital defect associated with carbamazepine and valproic acid during pregnancy?

- A. Cerebral palsy
- B. Hydrocephalus
- C. Kernicterus
- D. Spina bifida

Answer: D

1. Neural tube defects (NTDs), are the most common congenital central nervous system anomaly.
2. Myelomeningocele (spina bifida) is the most common NTD.
3. A myelomeningocele is the most serious form of spina bifida.
4. It is characterized by a cleft in the vertebral column, with a corresponding defect in the skin so that the meninges and spinal cord are exposed.
5. Patients with myelomeningocele may have weakness and absence of sensation affecting the lower extremities and bowel/bladder dysfunction, depending upon the level of the spinal lesion.
6. Risk factors for myelomeningocele include maternal obesity, hyperthermia (as a result of maternal fever or febrile illness or the use of saunas, hot tubs, or tanning beds), and maternal diarrhea. Identified risk factors also include intrauterine exposure to antiepileptic drugs, particularly valproate and carbamazepine.

704. A 27-year-old G3P2002, who is 34 weeks gestational age, calls the on-call obstetrician on a Saturday night at 10:00 PM complaining of decreased fetal movement. She says that yesterday her baby moved only once per hour. For the past 6 hours she has felt no movement. She is healthy, has had regular prenatal care, and denies any complications so far during the pregnancy. Which of the following is the best advice for the on-call physician to give the patient?

- A. Instruct the patient to go to labor and delivery for a contraction stress test.
- B. Instruct the patient to go to labor and delivery for a nonstress test
- C. Reassure the patient that one fetal movement per hour is within normal limits and she does not need to worry.
- D. Recommend the patient be admitted to the hospital for delivery.

Answer: B

Maternal perception of decreased fetal movement may precede fetal death in utero. Therefore, kick counts have been employed as a method of antepartum assessment. The optimal number of fetal movements that should be perceived per hour has not been determined. However, studies indicate that the perception of 10 distinct movements in a period of up to 2 hours is reassuring. Since this patient is experiencing only one movement per hour, and this movement is decreased from her previous baseline, further antepartum testing is indicated. A nonstress test is the preferred modality. A contraction stress test involves provoking uterine contractions and evaluating the response of the fetal heart rate tracing to contractions. As this patient is preterm, provoking contractions should be avoided. Delivery is not indicated until nonreassuring fetal status can be documented.

705. A 65-year-old woman complains of leakage of urine. The most common cause of this condition in such patients is ?

- A. Overflow incontinence
- B. Stress urinary incontinence
- C. Urethral diverticula
- D. Urge incontinence
- E. Vesicovaginal fistula

Answer: B

Bladder symptoms affect women of all ages. However, bladder problems are most prevalent among older women. Women over the age of 60 years are twice as likely as men to experience incontinence; one in three women over the age of 60 years are estimated to have bladder control problems. One reason why women are more affected is the weakening of pelvic floor muscles by pregnancy. So, stress urinary incontinence is the most common in elderly women.

706. What is the incidence of postterm pregnancy?

- A. 1-2%
- B. 15-25%
- C. 25-33%
- D. 3-12%

Answer: D

Postterm pregnancy is the condition of a baby that has not yet been born after 42 weeks of gestation, two weeks beyond the normal 40. Postterm pregnancy occurs in 3% to 12% of pregnancies.

707. A 28-year-old woman presents with a painful and erythematous right breast. The breast feels warm and there is a palpable fluctuant mass. Her temperature is 38.6°C. Purulent discharge from the nipple is noted. Which of the following is the most likely diagnosis in this woman?

- A. Breast Cyst
- B. Breast abscess
- C. Mammary duct ectasia
- D. Mastitis

Answer: B

This woman most likely has breast abscess. A breast abscess is a collection of pus that develops into the breast with different causes. Some women (approximately 15%) will require antibiotic treatment for infection which is usually caused by bacteria from the skin or the baby's mouth that entering the milk ducts through skin lesions of the nipple or through the opening of the nipple. Infection is usually caused by staphylococcus aureus. St. aureus was differentiated from other staphylococci by the coagulase test.

708. Which of the following is the best period during which the maternal serum alpha-fetoprotein (MSAFP) is the most accurate?

- A. 10 weeks
- B. 14 weeks
- C. 17 weeks
- D. 22 weeks

Answer: C

MSAFP is a screening test that examines the level of alpha-fetoprotein in the mother's blood during pregnancy. This is not a diagnostic test. It is often part of the triple screen test that assesses whether further diagnostic testing may be needed. MSAFP may be performed between the 14th and 22nd weeks of pregnancy, however it seems to be most accurate during the 16th to 18th week. Your levels of AFP vary during pregnancy so accurate pregnancy dating is imperative for more reliable screening results.

709. A 49-year-old G4P4 presents to your office complaining of a 2-month history of leakage of urine every time she exercises. She has had to limit her physical activities because of the loss of urine. She has had burning with urination and some blood in her urine for the past few days. Which of the following is the best next step in the evaluation and management of this patient?

- A. Cystoscopy
- B. Physical examination
- C. Placement of a pessary
- D. Urinalysis with urine culture

Answer: B

In this patient with presumed urinary stress incontinence by history, the next step in the evaluation would be the performance of a physical examination to document a cystocele, urethrocele, or other evidence of pelvic relaxation. A urine culture, cystoscopy, and cystometrics may also be part of the workup for this patient's chief complaint, but the physical examination should be the very next step. Placement of a pessary is one of the treatments for a cystocele, once the diagnosis has been made.

710. Which of the following is the most common cause of galactorrhea?

- A. Hyperprolactinemia
- B. Hypothyroidism
- C. Nipple stimulation
- D. Psychotropic medication

Answer: A

Galactorrhea is defined as lactation in men or non-breastfeeding women; it may be a sign of a potentially significant disorder and should be evaluated

Physiologic galactorrhea is usually bilateral and guaiac negative (as in this patient); the appearance is typically milky or clear but can also be yellow, brown, gray, or green. This patient has bilateral, guaiac-negative discharge without signs of malignancy (eg, breast mass, lymphadenopathy, nipple changes, unilateral discharge). Initial evaluation should focus on identifying the etiology and includes serum prolactin, TSH, and a pregnancy test.

Hyperprolactinemia is the most common cause of galactorrhea and can be due to pituitary prolactinoma, medications, hypothyroidism, pregnancy, or chest wall/nipple stimulation (eg, surgery, trauma, shingles).

Pituitary imaging (usually MRI) may be needed in patients with elevated prolactin and/or symptoms of a pituitary mass (eg, vision disturbances, headaches).

711. A 24-year-old Asian female pregnant comes with complaints of vaginal bleeding and abdominal pain. She is currently in her 10th week of pregnancy. Ultrasound examination of her uterus has shown large uterus with grapelike vesicles. Her urinary b-hCG level is much higher than normal for her gestational age. What is the most likely diagnosis?

- A. Abortion
- B. Molar pregnancy
- C. Normal pregnancy.
- D. Placenta previa

Answer: B

Hydatidiform moles are one of the most common but benign forms of gestational trophoblastic disease. A hydatidiform mole can either be complete or partial. The absence or presence of a fetus or embryo is used to distinguish complete from partial moles: complete moles are associated with the absence of a fetus. Partial moles usually occur with an abnormal fetus or may even be associated with fetal demise. In the classic case of molar pregnancy, quantitative analysis of beta-HCG shows hormone levels in both blood and urine greatly exceeding those produced in a normal pregnancy at the same stage. Ultrasound will show enlarged uterus, multiple cystic structures classically give a "snow storm" or "bunch of grapes" type appearance. Ref: <https://radiopaedia.org/articles/hydatidiform-mole>

712. When is considered premature ovarian failure?

- A. Before age 30
- B. Before age 35
- C. Before age 40
- D. Before age 45

Answer: C

Premature ovarian failure (POF) is the loss of function of the ovaries before age 40. A commonly cited triad for the diagnosis is amenorrhea, hypergonadotropism, and hypogonadism. If it has a genetic cause, it may be called gonadal dysgenesis.

713. A 30-year-old woman presents for a physical examination for work. She denies any medical problems or surgeries in the past. She has had no pregnancies. She is sexually active and has been using oral contraceptive pills for the past 6 years. She denies any allergies to medications. On examination, her weight is 62 kg, blood pressure 120/78 mm Hg, pulse 76 beats per minute, respiratory rate 15 breaths per minute, temperature 36.8°C (98.4°F). Her physical examination is normal. Which of the following is a known benefit of combination estrogen plus progestin oral contraceptives?

- A. Decreased activity of rheumatoid arthritis
- B. Decreased risk of breast cancer
- C. Decreased risk of cervical dysplasia

D. Decreased triglyceride levels

Answer: A

Combination estrogen plus progestin oral contraceptives have many benefits including: increased bone density, reduced menstrual blood loss and anemia, decreased risk of ectopic pregnancy, improved dysmenorrhea from endometriosis, fewer premenstrual complaints, decreased risk of endometrial and ovarian cancer, reduction in various benign breast diseases, inhibition of hirsutism progression, improvement of acne, prevention of atherogenesis, decreased incidence and severity of acute salpingitis and decreased activity of rheumatoid arthritis. There is a correlation between the risk of cervical dysplasia and oral contraceptive use. This may be due to lack of use of barrier methods with the pill and transmission of human papilloma virus or more frequent screening in pill users. Pills do not reduce the risk of breast cancer and their role in the development of breast cancer in pill users is unclear. One large study showed no increase risk and one study showed small increased risk (1.16 relative risk) in current users. Pills increase serum triglycerides; and they may accelerate the development of gall bladder disease in susceptible women.

714. On pelvic examination of a patient in labor at 34 weeks, the patient is noted to be 6 cm dilated, completely effaced with the fetal nose and mouth palpable. The chin is pointing toward the maternal left hip. This is an example of which of the following?

- A. Brow presentation
- B. Mentum transverse position
- C. Occiput transverse position
- D. Transverse lie

Answer: B

The lie of the fetus refers to the relation of the long axis of the fetus to that of the mother and is classified as longitudinal, transverse, or oblique. The presentation, or presenting part, refers to the portion of the baby that is foremost in the birth canal. The presentation may be cephalic, breech, or shoulder. Cephalic presentations are further classified as vertex, brow, or face. The position is the relative relationship of the presenting part of the fetus to the mother. In this instance, the fetus is cephalic with the face presenting. The chin is the point of reference of the fetus when describing the position of the face. Since the chin (mentum) is pointing toward the mother's hip, the fetal position is described as mentum transverse. In vertex presentations the occiput is the point of reference for determining position and in breeches, the sacrum.

715. A 19-year-old patient calls in your office requesting emergency contraception because a condom she and her boyfriend were using broke during intercourse last night. You counsel the patient appropriately and provide a suitable method of contraception. Which of the following statements is true regarding emergency contraception?

- A. If an established pregnancy is present use of Plan B will cause an abortion.
- B. Mifepristone is less effective than the Yuptze method.
- C. Out of 100 women using emergency contraception 10 will become pregnant.
- D. The major mechanism of action of emergency hormone contraceptives is inhibition or delay of ovulation.

Answer: D

Emergency contraception is warranted for prevention of unwanted pregnancy in times of unprotected sexual intercourse. Two hormonal methods are available: the Yuptze method (estrogen and progestin pills) and Plan B (progestin only). A number of combined (estrogen-progestin) contraceptives are FDA-approved for use as emergency contraception. The tablets are taken within 72 hours of intercourse, in two doses 12 hours apart. This method is highly effective and decreases pregnancy by 94%. Typically if 100 women had unprotected intercourse during the second or third week of their menstrual cycle 8 would become pregnant. If they used this emergency contraception regimen, only 2 would conceive. Nausea and vomiting are common due to the high doses of estrogen, due to this it is common to prescribe an anti-emetic to take before each dose. Plan B is a progestin only emergency contraceptive method which contains 0.75 mg of levonorgestrel, and similarly the first dose is taken within 72 hours and a second dose is repeated in 12 hours. Since it does not contain estrogen, nausea and emesis are not common and it is better tolerated than the Yuptze method. It also has a slightly higher efficacy (1.1 pregnancies). Plan B is FDA-approved to be sold over the counter to women 18 years of age and older without a prescription. The major mechanism of action of both of these methods is inhibition or delay of ovulation. Other mechanisms suggested are endometrial effects that prevent implantation, sperm penetration or tubal motility. Established pregnancies are not harmed by either method. Another method of emergency contraception is to insert a copper-containing intrauterine device up to 5 days after unprotected intercourse. The failure rate is about 1%. Mifepristone (RU-486) is a potent anti-progesterone that can be used as emergency contraception. It interferes with implantation and a single dose is more effective and has less side effects than the Yuptze regimen.

716. Your patient complains of decreased fetal movement at term. You recommend a modified BPP test. Nonstress testing (NST) in your office was reactive. The next part of the modified BPP is which of the following?

- A. Amniotic fluid index evaluation
- B. Contraction stress testing
- C. Ultrasound assessment of fetal breathing movements
- D. Ultrasound assessment of fetal movement

Answer: A

The BPP consists of five components:

1. Nonstress test
2. Fetal breathing movements—one or more episodes of fetal breathing movements of 30 seconds or more within 30 minutes
3. Fetal movement—three or more discrete body or limb movements within 30 minutes
4. Fetal tone—one or more episodes of extension of a fetal extremity with return to flexion, or opening or closing of a hand
5. Determination of amniotic fluid volume—a single vertical pocket of amniotic fluid exceeding 2 cm

Each of these components is assigned a score of 2 (normal) or 0 (abnormal or absent). In the modified BPP, only the NST and determination of amniotic fluid volume are assessed.

717. A pregnant 32-year-old paraplegic woman underwent a cesarean section. A week later she developed a deep venous thrombosis in her left lower limb. Which of the following is most likely long-term complication in this woman?

- A. Atherosclerosis
- B. Congestive heart failure
- C. Postphlebitic syndrome
- D. Varicose veins

Answer: C

1. Deep venous thrombosis (DVT) is clotting of blood in a deep vein of an extremity (usually calf or thigh) or the pelvis. 2. DVT is the primary cause of pulmonary embolism. DVT results from conditions that impair venous return, lead to endothelial injury or dysfunction, or cause hypercoagulability. 3. DVT may be asymptomatic or cause pain and swelling in an extremity; pulmonary embolism is an immediate complication. 4. Diagnosis is by history and physical examination and is confirmed by objective testing, typically with duplex ultrasonography. 5. d-Dimer testing is used when DVT is suspected; a negative result helps to exclude DVT, whereas a positive result is nonspecific and requires additional testing to confirm DVT. 6. Treatment is with anticoagulants. (Treatment initially is with an injectable heparin (unfractionated or LMWH) followed by oral warfarin or perhaps a LMWH; the role of oral factor Xa and direct thrombin inhibitors is evolving.) 7. Prognosis is generally good with prompt, adequate treatment. 8. Common long-term complications include venous insufficiency with or without the postphlebotic syndrome. 9. Deep venous thrombosis usually begins in venous valve cusps. Thrombi consist of thrombin, fibrin, and RBCs with relatively few platelets (red thrombi); without treatment, thrombi may propagate proximally or travel to the lungs.

718. An intrauterine pregnancy of approximately 10 weeks gestation is confirmed in a 30-year-old G5P4 woman with an IUD in place. The patient expresses a strong desire for the pregnancy to be continued. On examination, the string of the IUD is noted to be protruding from the cervical os. Which of the following is the most appropriate course of action?

- A. Leave the IUD in place and continue prophylactic antibiotics throughout pregnancy.
- B. Leave the IUD in place without any other treatment.
- C. Remove the IUD immediately.
- D. Terminate the pregnancy because of the high risk of infection.

Answer: C

Although there is an increased risk of spontaneous abortion, and a small risk of infection, an intrauterine pregnancy can occur and continue successfully to term with an IUD in place. However, if the patient wishes to keep the pregnancy and if the string is visible, the IUD should be removed in an attempt to reduce the risk of infection, abortion, or both. Although the incidence of ectopic pregnancies with an IUD was at one time thought to be increased, it is now recognized that in fact the overall incidence is unchanged. The apparent increase is the result of the dramatic decrease in intrauterine implantation without affecting ectopic implantation. Thus, while the overall probability of pregnancy is dramatically decreased, when a pregnancy does occur with an IUD in place, there is a higher probability that it will be an ectopic one. With this in mind, in the absence of signs and symptoms suggestive of an ectopic pregnancy, especially after ultrasound documentation of an intrauterine pregnancy, laparoscopy is not indicated. The incidence of heterotopic pregnancy, in which intrauterine and extrauterine implantation occur, is no higher than approximately 1 in 2500 pregnancies.

719. A pregnant woman complains to her physician because of feeling very tired during her pregnancy. A complete blood count with differential reveals a hematocrit of 30%, with hypersegmented neutrophils and large, hypochromic red cells. Deficiency of which of the following would be most likely to produce these findings?

- A. Ascorbic acid
- B. Calcium
- C. Folate
- D. Iron

Answer: C

Folate deficiency is a low level of folic acid and derivatives in the body. Also known as vitamin B9, folate is involved in adenosine, guanine, and thymidine synthesis (part of DNA synthesis). Signs of folate deficiency are often subtle. Anemia is a late finding in folate deficiency and folate deficiency anemia is the term given to this medical condition. It is characterized by the appearance of large-sized, abnormal red blood cells (megaloblasts), which form when there are inadequate stores of folic acid within the body.

720. In an amenorrheic patient who has had pituitary ablation for a craniopharyngioma, which of the following regimens is most likely to result in an ovulatory cycle?

- A. Clomiphene citrate
- B. Continuous infusion of GnRH
- C. Human menopausal or recombinant gonadotropin followed by human chorionic gonadotropin
- D. Pulsatile infusion of GnRH

Answer: C

This patient would be unable to produce endogenous gonadotropin, since her pituitary has been ablated. The patient will therefore need to be given exogenous gonadotropin in the form of human menopausal gonadotropin (hMG), which contains an extract of urine from postmenopausal women with follicle-stimulating hormone (FSH) and luteinizing hormone (LH) in various ratios. Recombinant human FSH (rhFSH) is now also available. Carefully timed administration of hCG, which takes the place of an endogenous LH surge, will be needed to complete oocyte maturation and induce ovulation. Clomiphene citrate acts by competing with endogenous circulating estrogens for estrogen-binding sites in the hypothalamus. Therefore, it blocks the normal negative feedback of the endogenous estrogens and stimulates release of endogenous GnRH. However, the ablated pituitary will not respond in this patient. Endogenous or exogenous GnRH cannot stimulate the release of FSH or LH in this woman because the pituitary gland is nonfunctional.

721. A patient presented to the emergency room with severe RLQ pain. Her urinary b-hCG is positive. Which of the following is the most likely diagnosis in this woman?

- A. Appendicitis
- B. Normal pregnancy
- C. Pyelonephritis
- D. Ruptured ectopic pregnancy

Answer: D

Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock.

722. A pregnant lady had a child with 3500 grams with the use of forceps, presented to you 20 days postpartum with whitish vaginal discharge but with no itching or cervical tenderness. On examination cervix is pink. Microscopic examination reveals epithelial cells with leukocytes. What would you do for your patient?

- A. Culture discharge
- B. Dipstick urinalysis
- C. Metronidazole
- D. Pelvic ultrasound
- E. Reassure

Answer: E

The woman has normal microscopic examination (epithelial cells with leukocytes) so the best next step is to reassure because it is normal vaginal discharge. You have to differentiate normal vaginal discharge from bacterial vaginosis, candidiasis, trichomoniasis, however, microscopy would show us pathognomic findings. Reference: <http://www.ncbi.nlm.nih.gov/books/NBK288/>

723. A patient was induced for being postterm at 42S weeks. Immediately following the delivery, you examine the baby with the pediatricians and note the following on physical examination: a small amount of cartilage in the earlobe, occasional creases over the anterior two-thirds of the soles of the feet, 4-mm breast nodule diameter, fine and fuzzy scalp hair, and a scrotum with some but not extensive rugae. Based on this physical examination, what is the approximate gestational age of this male infant?

- A. 28 weeks
- B. 33 weeks

- C. 36 weeks
- D. 38 weeks

Answer: D

An estimate of the gestational age of a newborn can be made rapidly by a physical examination immediately following delivery. Important physical characteristics that are evaluated are the sole creases, breast nodules, scalp hair, earlobes, and scrotum. In newborns who are 39 weeks gestational age or more, the soles of the feet will be covered with creases, the diameter of the breast nodules will be at least 7 mm, the scalp hair will be coarse and silky, the earlobes will be thickened with cartilage, and the scrotum will be full with extensive rugae. In infants that are 36 weeks or less, there will be an anterior transverse sole crease only, the breast nodule diameter will be 2 mm, the scalp hair will be fine and fuzzy, the earlobes will be pliable and lack cartilage, and the scrotum will be small with few rugae. In infants of gestational age between 37 and 38 weeks, the soles of the feet will have occasional creases on the anterior two-thirds of the feet, the breast nodule diameter will be 4 mm, the scalp hair will be fine and fuzzy, the earlobes will have a small amount of cartilage, and the scrotum will have some but not extensive rugae.

724. A 25-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the most likely vaginal pH in this woman?

- A. 2.0-3.0
- B. 3.0-4.0
- C. 5.0-6.0
- D. 6.0-7.0

Answer: C

1. Trichomonas vaginitis is a sexually transmitted infection that classically presents with yellow-green, malodorous, thin, frothy, and occasionally purulent vaginal discharge.
2. It usually causes pruritus, dysuria, and dyspareunia, though it can be asymptomatic.
3. Wet mount microscopy would show highly motile pear-shaped organisms with 3-5 flagella.
4. Vaginal pH 5.0 – 6.0.
5. Metronidazole is the treatment of choice and should be prescribed to both the patient and the partner.

725. A 1-day-old infant who was born by a difficult forceps delivery is alert and active. She does not move her left arm spontaneously or during a Moro reflex. Rather, she prefers to maintain it internally rotated by her side with the forearm extended and pronated. The rest of her physical examination is normal. This clinical scenario most likely indicates which of the following?

- A. Fracture of the left clavicle
- B. Fracture of the left humerus
- C. Left-sided Erb-Duchenne paralysis
- D. Left-sided Klumpke paralysis

Answer: C

In a difficult delivery in which traction is applied to the head and neck, several injuries, including all those listed in the question, may occur. Erb-Duchenne paralysis affects the fifth and sixth cervical nerves; the affected arm cannot be abducted or externally rotated at the shoulder, and the forearm cannot be supinated. Injury to the seventh and eighth cervical and first thoracic nerves (Klumpke paralysis) results in palsy of the hand and also can produce Horner syndrome. Fractures in the upper limb are not associated with a characteristic posture, and passive movement usually elicits pain. Spinal injury causes complete paralysis below the level of injury. When paralysis of an upper extremity from injury to the brachial plexus is found in a neonate, injury to the phrenic nerve should also be suspected because the nerve roots are close together and can be injured concurrently. The paralyzed diaphragm can be noted to remain elevated on a chest x-ray taken during deep inspiration when it will contrast with the opposite normal diaphragm in its lower normal position; on expiration, this asymmetry cannot be seen. On inspiration, not only is breathing impaired since the paralyzed diaphragm does not contract, but also the negative pressure generated by the intact diaphragm pulls the mediastinum toward the normal side, impairing ventilation further. The diagnosis can easily be made by fluoroscopy, where these characteristic movements on inspiration and expiration can be seen. Rarely, both diaphragms can be paralyzed, producing much more severe ventilatory impairment. Fortunately, these injuries frequently improve spontaneously.

726. A 26-year old female comes with complaints of vaginal bleeding. Female had 2 abortion in the second trimester. She is diagnosed with cervical incompetence and now pregnant in 10 weeks. During the pelvic examination, the cervical os is clauded. Which of the following is the best next step?

- A. Admission
- B. Bed rest
- C. Cerclage
- D. Salicylate

Answer: B

This woman has threatened abortion. A threatened miscarriage describes any bleeding during pregnancy, prior to viability, that has yet to be assessed. At investigation, it may be found that the fetus remains viable and the pregnancy continues without further problems. There is no treatment for threatened abortion, so the best next step is advise her to relax and lay bad rest.

727. A blood group A Rh-negative mother gave birth to her first baby who is A Rh-positive. Which of the following immunoglobulins should be given to her for prevention of complications during coming pregnancies?

- A. Ig A
- B. Ig E
- C. Ig G
- D. Ig M
- E. RhoD Ig

Answer: E

Rh disease is a type of hemolytic disease of the newborn. Most Rh disease can be prevented by treating the mother during pregnancy (between 28-30 weeks) or promptly (within 72 hours) after childbirth. The mother has an intramuscular injection of anti-Rh antibodies (Rho(D) immune globulin) at a dosage of 1500IU. This is done so that the fetal rhesus D positive erythrocytes are destroyed before the immune system of the mother can discover them and become sensitized. This is passive immunity and the effect of the immunity will wear off after about 4 to 6 weeks (or longer depending on injected dose) as the anti-Rh antibodies gradually decline to zero in the maternal blood.

728. A 23-year-old G1 at 38 weeks gestation presents in active labor at 6 cm dilated with ruptured membranes. On cervical examination the fetal nose, eyes, and lips can be palpated. The fetal heart rate tracing is 140 beats per minute with accelerations and no decelerations. The patient's pelvis is adequate. Which of the following is the most appropriate management for this patient?

- A. Allow spontaneous labor with vaginal delivery.

- B. Attempt manual conversion of the face to vertex in the second stage of labor.
- C. Perform forceps rotation in the second stage of labor to convert mentum posterior to mentum anterior
- D. Perform immediate cesarean section without labor.

Answer: A

In the event of a face presentation, successful vaginal delivery will occur; the majority of the time with an adequate pelvis. Spontaneous internal rotation during labor is required to bring the chin to the anterior position, which allows the neck to pass beneath the pubis. Therefore, the patient is allowed to labor spontaneously; a cesarean section is employed for failure to progress or for fetal distress. Manual conversion to vertex, forceps rotation, and internal version are no longer employed in obstetrics to deliver the face presentation because of undue trauma to both the mother and the fetus.

729. What is the best way to know the date of pregnancy?

- A. Fundal height
- B. Last menstrual cycle
- C. Ultrasound
- D. b-hCG level

Answer: C

The baby can be measured as early as 5 or 6 weeks after the mother's last menstrual period. Measuring the baby using ultrasound is most accurate in early pregnancy. It becomes less accurate later in pregnancy. The best time to estimate gestational age using ultrasound is between the 8th and 18th weeks of pregnancy. The 3 basic methods used to help estimate gestational age (GA) are menstrual history, clinical examination, and ultrasonography. The first 2 are subject to considerable error and should only be used when ultrasonography facilities are not available.

Reference: Medscape.

730. A pregnant woman has a gestational diabetes. Which of the following is a possible long-term complication for this woman?

- A. Cushing disease

- B. Cushing syndrome
- C. Diabetes mellitus type 2
- D. Polycystic ovarian syndrome

Answer: C

Gestational diabetes is a condition in which a woman without diabetes develops high blood sugar levels during pregnancy. Women diagnosed with gestational diabetes have an increased risk of developing diabetes mellitus in the future. The risk is highest in women who needed insulin treatment, had antibodies associated with diabetes (such as antibodies against glutamate decarboxylase, islet cell antibodies and/or insulinoma antigen-2), women with more than two previous pregnancies, and women who were obese (in order of importance).

731. A 45-years-old gravida 4 para 3 at week 8 of pregnant comes for a consultation. She had a Down syndrome baby during last pregnancy and she wants to know if her current baby has a Down syndrome. You propose chorionic villus sampling procedure. What of the following is a complication of this procedure?

- A. Amniotic fluid embolism
- B. Increase the risk of the fetus dying later in the pregnancy
- C. Rupture of amniotic sac
- D. Unintended miscarriage

Answer: D

Chorionic villus sampling (CVS) is a procedure that may be performed during pregnancy to diagnose certain genetic or chromosomal disorders. CVS involves having a biopsy of the developing placenta. **CHORIONIC VILLUS SAMPLING COMPLICATIONS** The most serious complication of CVS is miscarriage. CVS does not increase the risk of the fetus dying later in the pregnancy or after birth. Miscarriage — Miscarriage can happen in any pregnancy. However, the risk of miscarriage is nearly 3 percent higher in women who have CVS compared to those who choose amniocentesis for prenatal diagnosis. Most of the risk is confined to transcervical amniocentesis, which carries a 3.5 percent greater risk of fetal loss than amniocentesis. Transabdominal CVS appears to carry a fetal loss rate similar to that of amniocentesis, with a pregnancy loss rate of 0.7 percent within 14 days and of 1.3 percent within 30 days [1]. Amniocentesis can also cause miscarriage, although the risk is lower than with CVS.

732. A 33-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the possible complication of endometriosis?

- A. Dyschezia
- B. Liver failure
- C. Ovarian cancer
- D. Polycystic ovary syndrome

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

733. Which of the following drugs reduce oral contraceptive pills efficacy?

- A. Azithromycin
- B. Clonidine
- C. Donepezil
- D. Rifampin
- E. Sertraline

Answer: D

Most antiepileptic drugs significantly reduce OCP efficacy.
(Carbamazepine (Tegretol) Ethosuximide (Zarontin) Felbamate
Phenobarbital Phenytoin (Dilantin) Primidone (Mysoline)
Oxcarbazepine (Trileptal) Topiramate (Topamax)

Enzyme Inducing Drugs (e.g. Rifampin, Rifapentine, rifabutin)
significantly reduce OCP efficacy.

Other medications reduce OCP efficacy less

Amoxicillin

Ampicillin

Erythromycin

Fluconazole (Diflucan)

Griseofulvin

Itraconazole (Sporanox)

Ketoconazole (Nizoral)

Metronidazole (Flagyl)

Ritonavir

St. John's Wort (results in breakthrough bleeding)

Tetracycline Troglitazone (Rezulin)

734. The mother brought her 16-year-old daughter to the physician because she has not started to menstruate yet. Examination shows Tanner stage IV breast development and pubic hair, normal external female genitalia, and shaved axillary hair. Which of the following is the most likely diagnosis?

- A. Complete androgen insensitivity syndrom
- B. Mullerian agenesis
- C. Transverse vaginal septum
- D. Turner syndrom

Answer: B

Mullerian agenesis

1. 46 XX (no uterus)
2. Normal female phenotype Normal testosterone
3. They experience breast development and body hair grown at puberty but do not menstruate due to a congenitally absent or underdeveloped uterus, cervix, and upper vagina.
4. Normal pubic and axillary hair and female testosterone levels

735. A 9-year-old girl presents for evaluation of regular vaginal bleeding. History reveals thelarche at age 7 and adrenarche at age 8. Which of the following is the most common cause of this condition in girls?

- A. Gonadal tumors
- B. Hypothyroidism
- C. Idiopathic
- D. McCune-Albright syndrome

Answer: C

In North America, pubertal changes before the age of 8 years in girls and 9 years in boys are regarded as precocious. Although the most common type of precocious puberty in girls is idiopathic, it is essential to ensure close long-term follow-up of these patients to ascertain that there is no serious underlying pathology, such as tumors of the central nervous system or ovary. Only 1% to 2% of patients with precocious puberty have an estrogen-producing ovarian tumor as the causative factor. McCune-Albright syndrome (polyostotic fibrous dysplasia) is also relatively rare and consists of fibrous dysplasia and cystic degeneration of the long bones, sexual precocity, and café au lait spots on the skin. Hypothyroidism is a cause of precocious puberty in some children, making thyroid function tests mandatory in these cases. Tumors of the central nervous system as a cause of precocious puberty occur more commonly in boys than in girls; they are seen in about 11% of girls with precocious puberty.

736. A 42-year-old G4P3104 presents for her well-woman examination. She has had three vaginal deliveries and one cesarean delivery for breech. She states her cycles are regular and denies any sexually transmitted diseases. Currently she and her husband use condoms, but they hate the hassle of a

coital-dependent method. She is interested in a more effective contraception because they do not want any more children. She reports occasional migraine headaches and had a serious allergic reaction to anesthesia as a child when she underwent a tonsillectomy. She drinks and smokes socially. She weighs 78 kg, and her blood pressure is 142/89 mm Hg. During her office visit, you counsel the patient at length regarding birth control methods. Which of the following is the most appropriate contraceptive method for this patient?

- A. Combination oral contraceptives
- B. Diaphragm
- C. Intrauterine device
- D. Laparoscopic bilateral tubal ligation

Answer: C

An intrauterine device is a highly effective long-term method for which the patient has no contraindication. A bilateral tubal ligation would be another option; however, the patient had a serious allergic reaction to anesthesia as a child, and general anesthesia is required for female laparoscopic sterilization. The patient's smoking and age contraindicate the use of combination oral contraceptives. Migraine headaches accompanied by neurologic symptoms such as loss of vision, paresthesias, and numbness are generally considered to be a contraindication to combination oral contraceptive use. Use of a diaphragm is a coital-dependent action and the patient relates that it is not something she desires.

737. What is the causative organisms of sporotrichosis which is most commonly affects gardeners?

- A. *Haemophilus ducreyi*
- B. *Neisseria meningitidis*
- C. *Salmonella*
- D. *Sporothrix schenckii*

Answer: D

Sporotrichosis is a fungal infection caused by the dimorphic fungus, *Sporothrix schenckii*.

It is characterized by a papule at the site of inoculation, followed by ulceration and lymphadenopathy.

It is classically seen in gardeners. Lymphocutaneous disease is the usual manifestation with localization to skin and soft tissues.

738. A 48-year-old male patient presents to your clinic with an ulcer on his penis. Painless bilateral inguinal lymphadenopathy is present. Which of the following is the most likely diagnosis?

- A. Basal cell carcinoma
- B. Chancre
- C. Granuloma inguinale
- D. Herpes genitalis

Answer: B

Syphilis is caused by the spirochete *Treponema pallidum* and is characterized by 3 sequential clinical, symptomatic stages separated by periods of asymptomatic latent infection. Common manifestations include genital ulcers, skin lesions, meningitis, aortic disease, and neurologic syndromes. Primary syphilis is the first stage after infection. Papules become painless ulcers with rolled edges (chancres) which appear 2-3 weeks after contact at the site of infection, most commonly the vulva, vagina, or cervix. Darkfield microscopy of lesion exudate is positive for the spirochete, but the nonspecific serologic tests VDRL or rapid plasma reagin [RPR] test) are not yet positive. Without treatment the chancre spontaneously disappears.

739. Which of the following is the most common cancer in women?

- A. Breast cancer
- B. Colon cancer
- C. Lung cancer
- D. Skin cancer

Answer: A

Three Most Common Cancers Among Women

Breast cancer (123.9) First among women of all races and Hispanic* origin populations.

Lung cancer (50.8) Second among white, black, Asian/Pacific Islander, and American Indian/Alaska Native women. Third among Hispanic* women.

Colorectal cancer (32.8) Second among Hispanic* women. Third among white, black, Asian/Pacific Islander, and American Indian/Alaska Native women.

<https://www.cdc.gov/cancer/dcpc/data/women.htm>

740. A woman has postpartum depression. Which of the following is the best treatment for this woman?

- A. Amitriptyline
- B. Psychotherapy
- C. Psychotherapy with Sertraline
- D. Sertraline

Answer: C

Postpartum depression (PPD) is often treated with psychotherapy (also called talk therapy or mental health counseling), medication or both. Sertraline, paroxetine & nortriptyline are the safest & most effective in PPD. Psychological treatments for PPD are often the treatment of choice for women, as they are effective for the treatment of depressive symptoms and do not involve the risks of exposure to medications.

References: Toronto notes 2017, PS12,
<http://www.mayoclinic.org/diseases-conditions/postpartum-depression/basics/treatment/con-20029130>

741. Which of the following is a presentation when a baby is born bottom first instead of head first?

- A. Breech
- B. Brow
- C. Face
- D. Shoulder

Answer: A

A breech birth occurs when a baby is born bottom first instead of head first. A shoulder presentation refers to a malpresentation at childbirth where the baby is in a transverse lie (its vertebral column is perpendicular to that of the mother), thus the leading part (the part that enters first the birth canal) is an arm, shoulder, or the trunk. In a brow presentation, the fetal head is midway between full flexion (vertex) and hyperextension (face) along a longitudinal axis. The presenting portion of the fetal head is between the orbital ridge and the anterior fontanel. The face and chin are not included. In a face presentation, the fetal head and neck are hyperextended, causing the occiput to come in contact with the upper back of the fetus while lying in a longitudinal axis. The presenting portion of the fetus is the fetal face between the orbital ridges and the chin. The fetal chin (mentum) is the point designated for reference during an internal examination through the cervix. The occiput of a vertex is usually hard and has a smooth contour, while the face and brow tend to be more irregular and soft.

742. Which of the following is true regarding hereditary angioedema?

- A. Clinical presentation is usually at an older age
- B. It is related to excessive amyloid deposition.
- C. Mild trauma, pregnancy, and ingestion of certain foods may trigger attacks.
- D. Treatment involves dehydroepiandrosterone (DHEA) administration

Answer: C

1. Hereditary angioedema and acquired angioedema (acquired C1 inhibitor deficiency) are caused by deficiency or dysfunction of C1 inhibitor, a protein that regulates the classical complement activation pathway.
2. C1 inhibitor deficiency or dysfunction results in increased levels of bradykinin because C1 inhibitor inhibits activated kallikrein (required for the generation of bradykinin) in the kinin system pathway.
3. Onset is usually during childhood or adolescence (hereditary) or during later adulthood (acquired), often in patients with a neoplastic or an autoimmune disorder.
4. Triggers: In all forms of hereditary and acquired angioedema, attacks can be precipitated by mild trauma (eg, dental work, tongue piercing), viral illness, cold exposure, pregnancy, or ingestion of certain foods; angioedema may be aggravated by emotional stress.
5. Symptoms and signs are similar to those of other forms of bradykinin-mediated angioedema, with asymmetric and mildly painful swelling that often involves the face, lips, and/or tongue. Swelling may also occur on the back of hands or feet or on the genitals.
6. Pruritus, urticaria, and bronchospasm do not occur, but laryngeal edema may be present, causing stridor (and sometimes death).
7. Diagnosis is by measurement of complement levels.
8. C1 inhibitor is used to treat acute attacks.
9. Prophylaxis is with attenuated androgens, which increase C1 inhibitor levels.

743. Which of the following is associated with amenorrhea, headaches, blurring of vision and galactorrhea ?

- A. Asherman syndrome
- B. Conn syndrome
- C. Cushing's syndrome
- D. Prolactinoma

Answer: D

1. Prolactinomas are the most common hormone-secreting pituitary tumors.
2. Based on its size, a prolactinoma can be classified as a microprolactinoma (< 10 mm diameter) or a macroprolactinoma (>10 mm diameter).
3. Men: Presents with impotence, decreased libido, and occasionally gynecomastia.
4. Women: Amenorrhea and galactorrhea in the absence of pregnancy.
5. Most accurate diagnostic test is an MRI of the brain.
6. Treatment is indicated if mass effects from the tumor and/or significant effects from hyperprolactinemia are present.
7. Dopamine agonists (e.g. cabergoline or bromocriptine) are the mainstay of the treatment for
8. most patients with prolactinomas (microprolactinoma as well as macroprolactinoma).
9. Bromocriptine is generally considered to be the agent of choice in the treatment of prolactinoma because of its long track record and safety.
10. Surgically, transsphenoidal pituitary adenectomy is the preferred treatment in patients with microprolactinoma and in most patients with macroprolactinoma.

744. A woman has adenomyosis. Which of the following is the most specific method for diagnosing adenomyosis?

- A. Endometrial Biopsy
- B. Histology section of hysterectomy
- C. Pelvic MRI
- D. Pelvic ultrasound

Answer: B

Explanation: MRI is the most accurate test, hysterectomy the definitive diagnosis. Reference: master the boards USML Step 2 (2015), page 737

745. A patient comes to see you in the office because she has just missed her period and a home-urine-pregnancy test reads positive. She is extremely worried because last week she had a barium enema test done as part of a workup for blood in her stools. She is also concerned because her job requires her to sit in front of a computer screen all day and she uses the

microwave oven on a regular basis. The patient is concerned regarding the deleterious effects of radiation exposure on her fetus. Which of the following statements is true regarding the effects of exposure to radiation and electromagnetic fields during pregnancy?

- A. A single diagnostic procedure, such as a barium enema, results in a radiation dose that will adversely affect the embryo or fetus.
- B. There are documented adverse fetal effects with exposure to radiation doses of less than 5 rads.
- C. There is ample evidence in humans and animals that exposure to electromagnetic fields such as from high-voltage power lines, electric blankets, microwave ovens, and cellular phones causes adverse fetal outcomes.
- D. There is no consistent data that exposure to radiation used for a single diagnostic study is associated with an increased risk of childhood leukemia in the fetus.

Answer: D

Most of the data regarding the harmful fetal effects of ionizing radiation has been obtained from animal studies and from human studies involving Japanese atomic bomb survivors and women receiving radiation as treatment for malignancies and uterine myomas. Current evidence suggests that there are no adverse fetal effects when pregnant women are exposed to radiation doses less than 5 rads. The American College of Radiology states that not enough radiation is caused by any single diagnostic procedure to result in adverse embryo or fetal effects. Such diagnostic procedures include fluoroscopic procedures (barium swallow, barium enema, cerebral/cardiac angiography, IVP), plain films (chest/abdominal/pelvic x-rays), computed tomography studies, and nuclear medicine studies (ventilation-perfusion lung scans). Diagnostic ultrasound, used commonly in obstetrics, involves sound wave transmission at low-intensity range; this modality has not been associated with any fetal risks in over 35 years of use. Magnetic resonance imaging (MRI) involves the use of strong magnetic fields. There are currently no teratogenic effects associated with the use of MRI, but its safety in pregnant women cannot be assured until additional studies are available for outcome analysis. Electromagnetic waves generated in conjunction with power lines, electric blankets, microwave ovens, and cell phones readily traverse tissue but have no teratogenic potential. Human data indicates that exposure to large amounts of radiation between 8 and 15 weeks results in an increased risk of microcephaly and mental retardation. Fetuses less than 8 weeks or greater than 25 weeks gestational age are not at increased risk of mental retardation even when radiation doses exceed 50 rads.

746. A woman was diagnosed with ovarian germ cell theca. Which of the following could be seen in this woman?

- A. Amenorrhea
- B. Chronic salpingitis
- C. Endometrial hyperplasia
- D. Osteoporosis

Answer: C

Many patients with germ cell theca tumors present with manifestations of hyperestrogenism. Approximately 70% of these tumors are hormonally active. Hyper estrogenic findings including: hyperplastic endometrium and abnormal uterine bleeding, breast tenderness, postmenopausal bleeding, menstrual abnormalities, and in children sexual precocity.

[http://www.uptodate.com/contents/sex-cord-stromal-tumors-of-the-ovary-granulosa-stromal-cell-tumors?](http://www.uptodate.com/contents/sex-cord-stromal-tumors-of-the-ovary-granulosa-stromal-cell-tumors?source=machineLearning&search=granulosa+stromal+cell+tumor&selected=1~10&ionRank=1&anchor=H10#H20)
<http://emedicine.medscape.com/article/254489-clinical#b4>

747. A pregnant woman at 40 weeks of pregnancy in an active phase of labor had a sore throat. During induction into anesthesia has happened vomiting. After intubation the ventilation of the respiratory tract and oral cavity was performed. Subsequently, cyanosis developed, central venous pressure increased, bilateral wheezing over the lungs. At control of gases of blood is considerable hypoxia. Which of the following is the most likely diagnosis?

- A. Embolism with amniotic fluid
- B. Endotoxic shock
- C. Lung edema
- D. Mendelson's syndrome

Answer: D

Mendelson's syndrome is chemical pneumonitis or aspiration pneumonitis caused by aspiration during anesthesia, especially during pregnancy. Aspiration contents may include gastric juice, blood, bile, water or an association of them. Mendelson's syndrome is characterized by a bronchopulmonary reaction following aspiration of gastric contents during general anesthesia due to the abolition of the laryngeal reflexes. The main clinical features are signs of general hypoxia, two to five hours after anesthesia. Such features may include cyanosis, dyspnea, fever, pulmonary wheeze, crepitant rales, rhonchi, and tachycardia with a low blood pressure. Decreased arterial oxygen tension is also likely to be evident. Pulmonary edema can cause sudden death or death may occur later from pulmonary complications.

748. The woman at 40 weeks of pregnancy complains of reversible irregular pain which lasts for 2 days. She did not sleep at night. The head of the fetus over the plane of entering into the small pelvis. During the pelvic examination, the cervix is opened only for 2 cm. Which of the following is the most likely diagnosis?

- A. Prolonged active phase of labour
- B. Prolonged latent phase of labour
- C. Prolonged stage 2 of labour
- D. Prolonged stage 3 of labour

Answer: B

This woman has prolonged latent phase of labour.

Stage 1 - from onset till complete cervix dilation - lasts: primipara 6-18hrs (<20), multipara 2-10 (<14)hrs

Latent phase - from onset till 4 cm of cervix dilation -lasts: primipara 6-7hrs (>1,2cm/hr), multipara: 4-5cm (>1,5cm/hr)

Active phase - from 4cm till full dilation - lasts: primipara 1cm/hr, multipara 1,2cm/hr

Stage 2 - from Full dilation till delivery of neonate - lasts: primipara 1-3hrs, multipara 5-30min

Stage 3 - from delivery neonate till delivery of placenta - lasts: <30 minute

749. Valproic acid intake during pregnancy increases the risk of which of the following?

- A. Anencephaly
- B. Kernicterus
- C. Low birth weight
- D. Neural tube defect

Answer: D

1. **Neural tube defects** (NTD) occur because of a defect in the neurulation process.
2. The frequency of NTDs is increased with exposure to certain environmental factors, such as drugs (**valproic acid**, carbamazepine , folic acid antagonists eg, [methotrexate , aminopterin], excessive vitamin A intake), hyperthermia, maternal diabetes mellitus, obesity, and folate deficiency.
3. **Ultrasound** is also an effective technique for detecting NTDs,

750. A 67-year-old woman did Pap smear which came normal. When is it recommended for her to be retested with Pap smear?

- A. every 3 years
- B. every 5 years
- C. every year
- D. no further check up

Answer: D

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test). Beginning at age 30, the preferred way to screen is with a Pap test combined with an HPV test every 5 years. This is called co-testing and should continue until age 65. Another reasonable option for women 30 to 65 is to get tested every 3 years with just the Pap test. After 65 years old there is no need to continue screening.

751. A 29-year-old woman comes to the doctor with vaginal discharge and vulvar pruritus. Examination shows a thin, malodorous green vaginal discharge. Which of the following is the treatment of choice for this patient?

- A. Azithromycin for the patient and her sexual partner
- B. Fluconazole for the patient only.
- C. Oral metronidazole for the patient and her sexual partner.
- D. Oral metronidazole for the patient.

Answer: C

1. *Trichomonas vaginitis* is a sexually transmitted infection that classically presents with yellow-green, malodorous, thin, frothy, and occasionally purulent vaginal discharge. 2. It usually causes pruritus, dysuria, and dyspareunia, though it can be asymptomatic. 3. Wet mount microscopy would show highly motile pear-shaped organisms with 3-5 flagella. 4. Vaginal pH 5.0 – 6.0. 5. Metronidazole is the treatment of choice and should be prescribed to both the patient and the partner.

752. You are evaluating a 36-year-old woman in the emergency department for a broken arm. She states that she slipped in the tub. This is the third time you have seen her for a trauma-related injury in the past 6 months. You suspect domestic violence. After treating her broken arm and evaluating her emotional status, which of the following is the next appropriate step in the management of this patient?

- A. Confront the patient's partner.
- B. Discharge her to home.
- C. Offer counseling and resources.
- D. Order her to leave her partner.

Answer: C

As a physician, you should treat the injuries and assess the emotional needs of the patient from a psychiatric standpoint, such as possible depression or anxiety. If such a condition exists, you should refer the patient to a mental health worker. You should investigate the patient's own awareness of her situation and her willingness to take appropriate action. The physician's job is to recognize domestic violence and to ensure counseling for the patient so that she understands her rights and options and can protect herself and her children. A victim of abuse may not leave her situation for economic reasons or fear of retribution.

753. You have just diagnosed a 21-year-old infertile woman with polycystic ovarian syndrome. The remainder of the infertility evaluation, including the patient's hysterosalpingogram and her husband's semen analysis, were

normal. Her periods are very unpredictable, usually every 3 to 6 months. She would like your advice on the best way to conceive now that you have made a diagnosis. Which of the following treatment options is the most appropriate first step in treating this patient?

- A. Artificial insemination
- B. Dexamethasone
- C. Gonadotropins
- D. Metformin

Answer: D

Oral contraceptives have long been used in the management of PCOS because they suppress pituitary luteinizing hormone secretion, suppress ovarian androgen secretion, and increase circulating sex hormone-binding globulin (SHBG). Medications such as metformin that improve insulin sensitivity have been used to treat PCOS.

Spironolactone, which is a diuretic and aldosterone agonist, has been used to treat PCOS because it binds to the androgen receptor as an antagonist. Weight loss is recommended as part of the treatment for women with PCOS because it reduces hyperinsulinemia. Metformin use is a simple step in the attempt to induce ovulation in patients with PCOS. Insulin is thought to act on the ovary to stimulate androgen secretion. In addition, hyperinsulinemia decreases SHBG. There is no role for the use of dexamethasone to treat PCOS. Glucocorticoid therapy is indicated in cases of congenital adrenal hyperplasia.

754. During the regular checkup of a 50-year-old woman, there was found a dense tumor of the right mammary gland up to 5 cm in diameter without distinct borders. The skin over a tumor looked like lemon peel. Palpation revealed a lymph node in the axillary region. Which of the following is the most likely diagnosis in this woman?

- A. Breast cancer
- B. Breast lipoma
- C. Diffuse mastopathy
- D. Lactocele
- E. Mastitis

Answer: A

The first noticeable symptom of breast cancer is typically a lump that feels different from the rest of the breast tissue. More than 80% of breast cancer cases are discovered when the woman feels a lump. The earliest breast cancers are detected by a mammogram. Lumps found in lymph nodes located in the armpits can also indicate breast cancer. Indications of breast cancer other than a lump may include thickening different from the other breast tissue, one breast becoming larger or lower, a nipple changing position or shape or becoming inverted, skin puckering or dimpling, a rash on or around a nipple, discharge from nipple/s, constant pain in part of the breast or armpit, and swelling beneath the armpit or around the collarbone.

755. During the ultrasound examination, there was found an ovarian mass in a woman. A hysterectomy was done and the specimen has shown theca cell tumor. Which of the following is most likely in this woman?

- A. Hyperestrogenemia
- B. Hyperprogesteronemia
- C. Hyperprolactinemia
- D. Hyperthyroidism

Answer: A

Thecomas or theca cell tumors are benign ovarian neoplasms composed only of theca cells. Histogenetically they are classified as sex cord-stromal tumours. They are typically estrogen-producing and they occur in older women. They can, however, appear before menopause. 60% of patients present with abnormal uterine bleeding, and 20% have endometrial carcinoma. Endometrial hyperplasia is due to the estrogenic effect of the ovarian tumor. References: <https://radiopaedia.org/articles/ovarian-tumours-associated-with-endometrial-thickening>
<http://www.medscape.com/viewarticle/507187>

756. A 42-year-old woman with polycystic ovary syndrome, nulligravida, she never took any medication to regulate her period. Endometrial biopsy showed endometrial hyperplasia. Which of the following is most likely the cause of this findings?

- A. Nulligravida

- B. Old age
- C. Unopposed estrogen effect
- D. Unopposed progesterone effect

Answer: C

Progesterone is the hormone responsible for the monthly "shedding" process of the endometrium – or the lining of the uterus. This process results in monthly menstruation, which many women with PCOS don't have because of insufficient progesterone levels. Without progesterone and monthly periods, estrogen makes the endometrium thick and the cells may become altered, leading to a precancerous condition called endometrial hyperplasia. Eventually, endometrial cancer may develop if PCOS is left untreated.

757. Which of the following medications is not contraindicated during pregnancy?

- A. Inhaled steroids
- B. Isotretinoin
- C. Lithium
- D. Streptomycin

Answer: A

1. **Inhaled steroids** can be used during pregnancy.
2. **Lithium** is associated with Ebstein anomaly and other cardiac diseases.
3. **Isotretinoin** is associated with heart and great vessel defects, craniofacial dysmorphism and deafness.
4. **Streptomycin** is associated with CN VIII damage/ototoxicity.

758. Which of the following is the correct diagnosis for a woman with menses every 45 days?

- A. Hypermenorrhea
- B. Menometrorrhea
- C. Oligomenorrhea
- D. Polymenorrhea

Answer: C

Oligomenorrhea (or oligomenorrhoea) is infrequent (or, in occasional usage, very light) menstruation. More strictly, it is menstrual periods occurring at intervals of greater than 35 days, with only four to nine periods in a year. Menstrual periods should have been regularly established before the development of infrequent flow. The duration of such events may vary.

759. A patient who is 26-year-old G2P1 female at 33 weeks gestation presents to the emergency department saying that her "water broke" 22 hours ago. She reports that the fluid was a pale yellow color and denies the presence of mucus or blood. External fetal monitoring reveals a reactive fetal heart tracing and no uterine contractions. Speculum exam reveals a closed cervical os with a pool of fluid in the vaginal vault. The fluid is fern and nitrite positive. Bedside sonogram shows oligohydramnios and a fetus with cephalic presentation. Which of the following give the patient at high risk for Group B streptococcus infection?

- A. Family history of GBS infection
- B. History of polycystic ovary syndrome
- C. Rupture of membranes for more than 18 hours.
- D. Smoking

Answer: C

Group B strep infection is more common in African Americans than in whites. There are also maternal risk factors that increase the chance of transmitting GBS to the newborn leading to early onset disease:
Labor or membrane rupture before 37 weeks gestation
Membrane rupture more than 18 hours before delivery
Urinary tract infection with GBS during pregnancy
Previous baby with GBS infection
Fever during labor
Positive culture for GBS colonization at 35-37 weeks

760. A 34-year-old woman after the birth developed the temperature of the body increased to 38.8 ° C. She complains of general weakness, pain at the bottom of the abdomen. During the pelvic examination: the lochia is moderate, cloudy, with an unpleasant odor; the uterus - 4 cm below the umbilicus, soft, painful when palpated. In the general analysis of blood, expressed leukocytosis, pulmonary leukocytes - 31000/mL; ESR - 45 mm / h. Which of the following is the best treatment for this woman?

- A. Ampicillin with ceftriaxone
- B. Azithromycin
- C. Gentamycin with ampicillin
- D. Metronidazole

Answer: C

Endometritis is inflammation of the endometrium, the inner lining of the uterus. Pathologists have traditionally classified endometritis as either acute or chronic: acute endometritis is characterized by the presence of microabscesses or neutrophils within the endometrial glands, while chronic endometritis is distinguished by variable numbers of plasma cells within the endometrial stroma. The most common cause of endometritis is infection. Symptoms include lower abdominal pain, fever and abnormal vaginal bleeding or discharge. Caesarean section, prolonged rupture of membranes and long labor with multiple vaginal examinations are important risk factors. Treatment is usually with broad-spectrum antibiotics - IV clindamycin or ampicillin with gentamicin.

761. A 44-year-old G6P3215 presents for her well-woman examination. She tells you that all of her deliveries were vaginal and that her largest child weighed 2900 g at birth. How many full-term pregnancies did this patient have?

- A. 1
- B. 2
- C. 3
- D. 5

Answer: C

When taking an obstetric history on a patient, you must indicate the number of pregnancies (gravidity) and the outcome of each of these pregnancies (parity). More specifically, the parity is further subclassified into number of term deliveries, preterm deliveries, abortions (spontaneous or induced) or ectopics, and number of living children. Since this patient is a G6P3215, she has been pregnant six times and has had three term deliveries, two preterm deliveries, one abortion, and has five living children.

762. The labor nurse calls you in your office regarding your patient who is 30 weeks pregnant and complaining of decreased fetal movement. The fetus is known to have a ventricular septal defect of the heart. The nurse has performed a non-stress test on the fetus. No contractions are seen. She thinks the tracing shows either a sinusoidal or saltatory fetal heart rate (FHR) pattern. Without actually reviewing the FHR tracing what can you tell the nurse?

- A. Fetuses with congenital anomalies of the heart will invariably exhibit abnormal FHR patterns.
- B. The FHR tracing is probably not a saltatory FHR pattern because this pattern is almost always seen during rather than before labor.
- C. The FHR tracing is probably not a sinusoidal FHR pattern because this pattern can be diagnosed only if the patient is in labor.
- D. The FHR tracing of the premature fetus should be analyzed by different criteria than tracings obtained at term.

Answer: B

The sinusoidal pattern was first described in a group of severely affected Rh-immunized fetuses. It has also been described, however, in normal fetuses and in association with maternal medication (eg, alphaprodine). A saltatory pattern, which in the past was thought to be associated with depressed fetuses with low Apgar scores, is now thought to represent episodes of brief and acute hypoxia in the previously normally oxygenated fetus. This pattern is almost invariably seen during, rather than before, labor. The same relationship between the FHR pattern and the acid-base status has been documented in preterm and term fetuses. Thus, both the antepartum and the intrapartum FHR patterns of the premature fetus should be analyzed by the same criteria used at term. The vast majority of fetuses with congenital anomalies, including cardiac anomalies, have normal FHR patterns and a response to asphyxia similar to that of the normal fetus. Although no pathognomonic abnormal FHR patterns have been described for such fetuses, the rate of cesarean sections for fetal distress is reported to be significantly increased in this group. This may be explained by the oligohydramnios and fetal growth retardation that commonly occur in pregnancies affected by fetal congenital anomalies.

763. A 24-year-old G0 presents to your office complaining of vulvar discomfort. More specifically, she has been experiencing intense burning and pain with intercourse. The discomfort occurs at the vaginal introitus primarily with penile insertion into the vagina. The patient also experiences the same pain with tampon insertion and when the speculum is inserted

during a gynecologic exam. The problem has become so bad that she can no longer have intercourse, which is causing problems in her marriage. She is otherwise healthy and denies any medical problems. She is experiencing regular menses and denies any dysmenorrhea. On physical exam, the region of the vulva around the opening of the vagina appears erythematous and inflamed and is tender to touch with a cotton swab. What is the most likely diagnosis?

- A. Atrophic vaginitis
- B. Contact dermatitis
- C. Lichen sclerosus
- D. Vulvar intraepithelial neoplasia
- E. Vulvar vestibulitis

Answer: E

Vulvar vestibulitis syndrome (VVS), vestibulodynia, or simply vulvar vestibulitis, is vulvodynia localized to the vulvar region. It tends to be associated with a highly localized "burning" or "cutting" type of pain. VVS is the most common subtype of vulvodynia that affects premenopausal women. VVS is characterized by severe pain with attempted penetration of the vaginal orifice and complaints of tenderness with the pressure within the vulval vestibule. The feelings of irritation and burning can persist for hours or days following sexual activity, engendering a sense of hopelessness and depression. VVS also can often cause dyspareunia.

764. A 20-year-old G1 at 32 weeks presents for her routine obstetric (OB) visit. She has no medical problems. She is noted to have a blood pressure of 150/96 mm Hg, and her urine dip shows 1+ protein. She complains of a constant headache and vision changes that are not relieved with rest or a pain reliever. The patient is sent to the hospital for further management. At the hospital, her blood pressure is 158/98 mm Hg and she is noted to have tonic-clonic seizure. Which of the following is indicated in the management of this patient?

- A. Antihypertensive therapy
- B. Dilantin (phenytoin)
- C. Low-dose aspirin
- D. Magnesium sulfate

Answer: D

Eclampsia is the presence of new-onset grand mal seizures in a woman with preeclampsia. She requires delivery. Cesarean delivery is not always necessary. Magnesium sulfate is given for prophylaxis against recurrent seizure. Magnesium sulfate has been shown in randomized control trials to be better than phenytoin or diazepam at preventing seizures. Low-dose aspirin and calcium supplementation have not been shown to be beneficial in preventing preeclampsia. Women with eclampsia should be stabilized quickly; magnesium sulfate should be started to prevent further seizures; and antihypertensives should be used to control blood pressure. The patient should be delivered in a timely fashion, and the method of delivery should depend on factors such as gestational age, fetal presentation, and cervical examination. Antihypertensive therapy is usually initiated for systolic blood pressure greater than 160 or diastolic blood pressure greater than 110. The incidence of preeclampsia is 5% to 8% and primarily occurs in first pregnancies. Risk factors include preeclampsia in previous pregnancy, chronic hypertension, pregestational diabetes, multifetal gestations, vascular and connective tissue disease, nephropathy, antiphospholipid syndrome, obesity, older age, and African American race.

765. A 40-year-old G4P5 at 39 weeks gestation has progressed rapidly in labor with a reassuring fetal heart rate pattern. She has had an uncomplicated pregnancy with normal prenatal labs, including an amniocentesis for advanced maternal age. The patient begins the second stage of labor and after 15 minutes of pushing starts to demonstrate deep variable heart rate accelerations. You suspect that she may have a fetus with a nuchal cord. You expediently deliver the baby by low-outlet forceps and hand the baby over to the neonatologists called to attend the delivery. As soon as the baby is handed off to the pediatric team, it lets out a strong spontaneous cry. The infant is pink with slightly blue extremities that are actively moving and kicking. The heart rate is noted to be 110 on auscultation. What Apgar score should the pediatricians assign to this baby at 1 minute of life?

- A. 10
- B. 7
- C. 8
- D. 9

Answer: D

The Apgar scoring system, applied at 1 minute and again at 5 minutes, was developed as an aid to evaluate infants who require resuscitation. Heart rate, respiratory effort, muscle tone, reflex, irritability, and color are the five components of the Apgar score. A score of 0, 1, or 2 is given for each of the five components, and the total is added up to give one score. The baby described here receives an Apgar score of 9. One point is deducted for the baby not being completely pink and having blue extremities.

766. A woman complains of painful and heavy menses for the past five years. These symptoms are associated with cramping located in her lower abdomen that radiates to her lower back and inner thighs. She has nausea and vomiting. The pelvic exam is normal. Which of the following is the best treatment option for her?

- A. Desmopressin
- B. Estrogen
- C. Oral contraceptive pills
- D. Progestins

Answer: C

Oral contraceptives: Suppress endometrial development, reestablish predictable bleeding patterns, decrease menstrual flow, and lower the risk of iron deficiency anemia.

Estrogen: Prolonged uterine bleeding suggests the epithelial lining of the cavity has become denuded over time; estrogen administered alone will rapidly induce a return to normal endometrial growth.

Progestins: Chronic management of AUB requires episodic or continuous exposure to a progestin.

Desmopressin: A synthetic analog of arginine vasopressin, desmopressin has been used as a last resort to treat abnormal uterine bleeding in patients with documented coagulation disorders hysterectomy endometrial ablation.

References: Toronto notes 2017, GY12.

<http://emedicine.medscape.com/article/257007-overview>

767. You are delivering a 33-year-old G3P2 and encounter a shoulder dystocia. After performing the appropriate maneuvers, the baby finally delivers, and the pediatricians attending the delivery note that the right arm is hanging limply to the baby's side with the forearm extended and internally rotated. Which of the following is the baby's most likely diagnosis?

- A. Clavicular fracture
- B. Erb palsy
- C. Humeral fracture
- D. Klumpke paralysis
- E. Paralysis from intraventricular bleed

Answer: B

Shoulder dystocias can be associated with significant fetal morbidity including brachial plexus palsies, clavicular fractures, and humeral fractures. Fractures of the clavicle and humerus usually heal rapidly and are clinically insignificant. Injury to the brachial plexus may be localized to the upper or lower roots. In Erb (or Erb-Duchenne) palsy, the upper roots of the brachial plexus are injured (C5-6), resulting in paralysis of the shoulder and arm muscles; the arm hangs limply to the side and is extended and internally rotated. In the case of Klumpke paralysis, the lower nerves of the brachial plexus are affected (C7-T1) and the hand is paralyzed.

768. Which of the following is the least common malpresentation in pregnancy?

- A. Complete breech
- B. Footling breech
- C. Frank breech
- D. Kneeling breech

Answer: B

Frank breech is the most common and is most suitable for vaginal delivery.

Footling breech is the least common and has the highest risk of cord prolapse.

Complete (20%) (Common in multigravidae)

Incomplete:

Frank breech (70%) (Common in primigravidae)

Footling breech

Kneeling breech

769. A lactating mother complaining of breast tenderness, hotness and redness, diagnosed to have bacterial mastitis. Which of the following is the best recommendation for her?

- A. Continue breastfeeding and no need any treatment
- B. Continue breastfeeding, heat packs and oral antibiotics
- C. Discontinue breastfeeding and give antibiotic to mother and baby
- D. Discontinue breastfeeding until symptoms disappear

Answer: B

Heat or ice packs, continued breastfeeding/pumping in Pts who are no longer breastfeeding, antibiotics (dicloxacillin/cephalexin, amoxicillin/Clavunate, Azithromycin, clindamycin) (ery-thromycin if penicillin-allergic). Reference: Toronto notes and 3rd Edition UQU > Obstetrics and Gynecology > Q 385 +First Aid step 2 .

770. A 22-year-old woman presents to your office for her well-woman examination and contraception. She has no medical problems or prior surgeries. She does not smoke or drink. Her vital signs and physical examination are normal. You explain the risks and benefits of combination oral contraceptive pills to the patient. She wants to know how they will keep her from getting pregnant. Which of the following mechanisms best explains the contraceptive effect of birth control pills that contain both synthetic estrogen and progestin?

- A. Direct inhibition of oocyte maturation
- B. Impairment of implantation hyperplastic changes of the endometrium

- C. Inhibition of ovulation
- D. Production of uterine secretions that are toxic to developing embryos

Answer: C

The marked effectiveness of the combined oral contraceptive pill, which contains a synthetic estrogen and a progestin, is related to its multiple antifertility actions. The primary effect is to suppress gonadotropins at the time of the midcycle LH surge, thus inhibiting ovulation. The prolonged progestational effect also causes thickening of the cervical mucus and atrophic (not hyperplastic) changes of the endometrium, thus impairing sperm penetrability and ovum implantation, respectively. Progestational agents in oral contraceptives work by a negative feedback mechanism to inhibit the secretion of LH and, as a result, prevent ovulation. They also cause decidualization and atrophy of the endometrium, thereby making implantation impossible. Some evidence indicates that progestational agents may change ovum and sperm migration patterns within the reproductive system. Progestins do not prevent irregular bleeding. Estrogen in birth control pills enhances the negative feedback of the progestins and stabilizes the endometrium to prevent irregular menses. Oral contraceptives have no direct effect on oocyte maturation and do not cause uterotubal obstruction.

771. A 43-year-old G1P0 who conceived via in vitro fertilization comes into the office for her routine OB visit at 38 weeks. She denies any problems since she was seen the week before. She reports good fetal movement and denies any leakage of fluid per vagina, vaginal bleeding, or regular uterine contractions. She reports that sometimes she feels crampy at the end of the day when she gets home from work, but this discomfort is alleviated with getting off her feet. The fundal height measurement is 36 cm; it measured 37 cm the week before. Her cervical exam is 50/2/0. What is the appropriate next step in the management of this patient?

- A. Emergency cesarean section
- B. Induce vaginal delivery
- C. Non-stress test
- D. Schedule visit in another week

Answer: D

The decrease in fundal height between visits can be explained by engagement of the fetal head, which is verified on vaginal exam with determination of the presenting part at 0 station. Engagement of the fetal head commonly occurs before labor in nulliparous patients. Therefore it is appropriate for the patient to return for another scheduled visit in another week. Intrauterine growth lag is unlikely because there will usually be a greater discrepancy (>3 cm.) between fundal height and gestational age. Therefore, the patient does not need to be induced. Since the patient has been reporting good fetal movement and is not post term, there is no indication to do antepartum testing such as an NST. A fern test is not indicated since the patient has not reported leakage of fluid. An assessment of amniotic fluid to detect oligohydramnios is not indicated since the fundal height is appropriate for the patient's gestational age.

772. A 55-year- old multiparous lady presented with uterine prolapse. Weakness of which of the following uterine ligaments is the most likely cause?

- A. Broad
- B. Cardinal
- C. Ovarian
- D. Round
- E. Uterosacral

Answer: E

A uterine prolapse is a form of female genital prolapse. It is also called pelvic organ prolapse or prolapse of the uterus (womb). Risk factors for uterine prolapse include pregnancy, childbirth, chronic increases in intra-abdominal pressure such as lifting, coughing or straining, connective tissue conditions, and damage to or weakness of the muscles. Prolapse happens when the ligaments supporting the uterus become so weak that the uterus cannot stay in place and slips down from its normal position. These ligaments are the round ligament, uterosacral ligaments, broad ligament and the ovarian ligament. The uterosacral ligaments are by far the most important ligaments in preventing uterine prolapse.

773. A woman presents to your office for evaluation of primary infertility. She has regular periods every 28 days. She has done testing at home with an ovulation kit, which suggests she is ovulating. A hysterosalpingogram demonstrates patency of both fallopian tubes. A progesterone level drawn in the mid-luteal phase is lower than expected. A luteal phase defect is suspected to be the cause of this patient's infertility. Which of the following studies performed in the second half of the menstrual cycle is helpful in making this diagnosis?

- A. Endometrial biopsy
- B. Serum estradiol levels
- C. Serum follicle-stimulating hormone (FSH) levels
- D. Urinary pregnanetriol levels

Answer: A

An abnormal luteal phase is defined as ovulation with a poor progestational effect in the second half of the cycle. Luteal function is usually evaluated at the endometrium, which is inadequately prepared for embryo implantation. Endometrial biopsy is crucial to the diagnosis of this defect because the endometrium will be out of phase with the time of cycle in these patients. For example, a biopsy taken on day 26 of the cycle will resemble endometrium of day 22 because of decreased progesterone stimulation. Progesterone levels in the mid-luteal phase less than 10 ng/mL are suggestive of a luteal phase defect but not diagnostic. Pregnanetriol is a breakdown product of 17-hydroxyprogesterone, and levels are not helpful in diagnosing this condition. Determination of the level of pregnanediol, which is a metabolic product of progesterone excreted in the urine, is helpful. Serum luteinizing hormone levels have no correlation with the presence of luteal phase defect.

774. A pregnant woman has bacterial vaginosis. Which of the following organism is most likely responsible for this disease?

- A. *Candida albicans*
- B. *Gardnerella*
- C. *Haemophilus ducreyi*
- D. *Trichomonas vaginalis*

Answer: B

1. Bacterial vaginosis is vaginitis due to a complex alteration of vaginal flora in which lactobacilli decrease and anaerobic pathogens (*Gardnerella*) overgrow. 2. Symptoms include a gray, thin, fishy-smelling vaginal discharge and itching. 3. Diagnosis is confirmed by testing vaginal secretions. 4. Treatment is usually with oral or topical metronidazole or topical clindamycin.

775. A 34-year-old G2P1 at 31 weeks gestation with a known placenta previa presents to the hospital with vaginal bleeding. On assessment, she has normal vital signs and the fetal heart rate tracing is 140 beats per minute with accelerations and no decelerations. No uterine contractions are demonstrated on external tocometer. Heavy vaginal bleeding is noted. Which of the following is the best next step in the management of this patient?

- A. Administer intramuscular terbutaline.
- B. Administer methylergonovine.
- C. Admit and stabilize the patient.
- D. Perform cesarean delivery.

Answer: C

In this patient who is starting to hemorrhage from a placenta previa, steps should be taken to stabilize the patient and prepare for possible emergent cesarean section. The patient is not contracting, and therefore there is no role for tocolysis. In addition, terbutaline should never be used in a patient who is actively bleeding because it is associated with maternal tachycardia and vasodilation. The actively bleeding patient should be resuscitated with intravenous fluids while blood is being cross-matched for possible transfusion. A Foley catheter should be placed because urinary output is a reflection of the patient's volume status. Finally, anesthesia should be notified because the patient may require imminent delivery.

776. A 78-year-old woman complains of leakage of urine. Which of the following is the most common cause of this condition in patients in this age range?

- A. Anatomic stress urinary incontinence
- B. Overflow incontinence

- C. Urethral diverticulum
- D. Urge incontinence

Answer: D

As a patient ages, the incidence of urge incontinence increases dramatically. Although estrogen has been reported to decrease urgency, frequency, and nocturia in menopausal women, its effect on correction of stress urinary incontinence or urge incontinence is unclear. In the elderly population there are also many transient causes of incontinence that the physician should consider. These include dementia, medications (especially α -adrenergic blockers), decreased patient mobility, endocrine abnormalities (hypercalcemia, hypothyroidism), stool impaction, and urinary tract infections.

777. A 25-year-old female has a self-detected tumor in the upper outer quadrant of her right breast. On palpation there is a painless, firm, mobile lump up to 2 cm in diameter, peripheral lymph nodes are not changed. In the upper outer quadrant of the right breast ultrasound revealed a massive neoplasm with increased echogenicity sized 21x18 mm. What is the most likely diagnosis?

- A. Diffuse mastopathy
- B. Fibroadenoma
- C. Intraductal papilloma
- D. Lactocele

Answer: B

Fibroadenomas, are benign breast tumours characterized by an admixture of stromal and epithelial tissue. Breasts are made of lobules (milk producing glands) and ducts (tubes that carry the milk to the nipple). These are surrounded by glandular, fibrous and fatty tissues. Fibroadenomas develop from the lobules. The glandular tissue and ducts grow over the lobule to form a solid lump. Since both fibroadenomas, and breast lumps as a sign of breast cancer can appear similar, it is recommended to perform ultrasound analyses and possibly tissue sampling with subsequent histopathologic analysis in order to make a proper diagnosis. Unlike typical lumps from breast cancer, fibroadenomas are easy to move, with clearly defined edges. [

778. A breastfeeding mother with a known history of seizures comes for a consultation. She is using phenytoin to control her seizures. She is asking about breastfeeding recommendation. Which of the following is the best recommendation for this woman?

- A. Breastfeeding after 4 hours of taking the drug
- B. Feed the baby with an infant formula
- C. Feed the baby with cow milk
- D. Reassurance

Answer: D

Breastfeeding during phenytoin monotherapy does not appear to adversely affect infant growth or development, and breastfed infants had slightly higher IQs and enhanced verbal abilities than no breastfed infants at 6 years of age in one study. Reference:
<https://www.drugs.com/breastfeeding/phenytoin.html>

779. Suppurative inguinal adenitis usually starts by the appearance of small, painless lesions on the external genitalia that heal spontaneously. Then regional lymph nodes enlarge and become painful and often discharge pus through multiple sinus tracts. Which organism listed below is responsible for this STD?

- A. Bartonella (Rochalimaea) henselae
- B. Chlamydia trachomatis
- C. Coxiella burnetii
- D. Ehrlichia chaffeensis
- E. Rickettsia rickettsii

Answer: B

Chlamydiae are gram-negative bacteria that are obligate, intracellular parasites. They are divided into three species: *C. trachomatis*, *C. pneumoniae*, and *C. psittaci*. Chlamydiae have a unique developmental cycle. The infectious particle is the elementary body. Once inside the cell, the elementary body undergoes reorganization to form a reticulate body. After several replications, the reticulate bodies differentiate into elementary bodies, are released from the host cell, and become available to infect other cells. Three of the 15 serovars of *C. trachomatis* (L1, L2, and L3) are known to cause LGV, an STD. *C. trachomatis* is a leading cause of STD in the United States. It is insidious because so many early infections are asymptomatic, particularly in women. The painless papule or vesicle develops on any part of the external genitalia, anus, rectum, or elsewhere. This lesion may ulcerate and heal without notice. Lymph nodes enlarge and discharge pus through sinuses. Unless effective antibiotics (tetracycline, erythromycin) are given promptly, a chronic inflammatory process may lead to fibrosis and lymphatic obstruction.

780. A pregnant woman comes at 24 weeks of pregnancy for her first visit. She has history of three premature deliveries. Her cervical length is 20 mm. Which of the following is the best next step for this woman?

- A. Immediate cerclage
- B. Inject her with progesterone
- C. Strict bed rest
- D. Terminate her pregnancy

Answer: A

Several studies have indicated that the likelihood of preterm delivery increases with decreasing cervical length. A cervical length of 25–30 mm before 32 weeks gestation seems to increase the risk of preterm delivery. If examination and ultrasound show that you have an abnormally short cervix, and you're less than 24 weeks pregnant, your practitioner may recommend "cerclage", a procedure in which she stitches a band of strong thread around your cervix to reinforce it and help hold it closed.

781. A 29-year-old pregnant woman is in her twenty-first week of pregnancy. She has lost three consecutive normally formed fetuses after 20 weeks gestation. During the physical examination, her uterine cervix is 4 cm dilated and membranes are intact. The diagnosis cervical incompetence is made. Which of the following is the normal cervical length?

- A. 15
- B. 20
- C. 25
- D. 30

Answer: D

Cervical incompetence (or cervical insufficiency) is a medical condition of pregnancy in which the cervix begins to dilate (widen) and efface (thin) before the pregnancy has reached term. Normally, the cervix should be at least 30 mm in length. Cervical incompetence is variably defined. However, a common definition is a cervical length of less than 25 mm at or before 24 weeks of gestational age. The risk of preterm birth is inversely proportional to cervical length: Less than 25 mm; 18% risk of preterm birth Less than 20 mm; 25% risk of preterm birth Less than 15 mm; 50% risk of preterm birth

782. A 25-year-old female comes to emergency room with complaints of nausea, vomiting and diarrhea. She admits to currently menstruating and using tampons, which she does not change frequently. Temperature is 39.0°C, blood pressure 95/60 mmHg and pulse is 108/min. She is ill appearing on exam. Skin evaluation reveals a diffuse macular erythematous rash. Complete blood cell findings included a WBC of 18,000/mm³. Blood cultures were negative. Which of the following is the cause of the disease?

- A. Chlamydia trachomatis
- B. N. gonorrhea
- C. St. aureus
- D. Treponema pallidum

Answer: C

Toxic Shock Syndrome (TSS)

Caused by preformed *S. aureus* toxin (TSST-1); often occurs within five days of the onset of a menstrual period in women who have used tampons.

HISTORY/PE

- Presents with abrupt onset of fever, vomiting, and watery diarrhea, with fever 38.9°C (102°F) or higher.
- A diffuse macular erythematous rash is also seen.
- No purulent conjunctivitis is common.
- Desquamation, especially of the palms and soles, generally occurs during recovery within 1–2 weeks of illness.

source: <http://emedicine.medscape.com/article/169177-clinical>

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783. A 20-year-old G1 patient delivers a live-born infant with cutaneous lesions, limb defects, cerebral cortical atrophy, and chorioretinitis. Her pregnancy was complicated by pneumonia at 18 weeks. What is the most likely causative agent?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Rubella virus
- D. Varicella zoster

Answer: D

Maternal infection with viruses and bacteria during pregnancy can cause an array of fetal effects from none to congenital malformations and death. Maternal infection with varicella-zoster during the first half of pregnancy can cause malformations such as cutaneous and bony defects, chorioretinitis, cerebral cortical atrophy, and hydronephrosis. Adults with varicella infection fare much worse than children; about 10% will develop a pneumonitis, and some of these will require ventilatory support.

784. In the maternity ward with the excessive intensity of labor activity, developed unexpected signs of respiratory failure, chills, and body temperature increased to 41 ° C, and her blood pressure is 80/50 mmHg. Symptoms of pulmonary edema developed. Which of the following is the most likely complication?

- A. Acute adrenal insufficiency
- B. Amniotic fluid embolism
- C. Eclampsia
- D. Internal bleeding

Answer: B

An amniotic fluid embolism (AFE) is a rare childbirth (obstetric) emergency in which amniotic fluid, enters the bloodstream of the mother to trigger a serious reaction. This reaction then results in cardiorespiratory (heart and lung) collapse and massive bleeding (coagulopathy).

The amniotic fluid embolism is suspected when a woman giving birth experiences very sudden insufficient oxygen to body tissues, low blood pressure, and profuse bleeding due to defects in blood coagulation. Though symptoms and signs can be profound, they also can be entirely absent. There is much variation in how each instance progresses.

785. Which of the following is a marker for ovarian Yolk sac tumor?

- A. AFP
- B. CA-125
- C. LDH
- D. hCG

Answer: A

Ovarian Tumour Markers:
Epithelial cell – CA-125.
Stromal/ Granulosa cell – inhibin.
Sertoli-Leydig – androgens.
Germ cell/Dysgerminoma – LDH.
Yolk sac – AFP.
Choriocarcinoma – hCG.
Immature Teratoma – none.
Embryonal cell – AFP + -hCG.

786. A 25 year old nulliparous women at 9 weeks comes to the doctor with symptoms of urinary tract infection. Regarding antibiotics which of the following is the most appropriate ?

- A. Bactrim

- B. Ciprofloxacin
- C. Doxycycline
- D. Nitrofurantoin

Answer: D

Urinary tract infections (UTIs) are common in pregnancy.

UTIs are associated with risks to both the fetus and the mother, including pyelonephritis, preterm birth, low birth weight, and increased perinatal mortality.

Pyelonephritis is the most common urinary tract complication in pregnant women, occurring in approximately 2% of all pregnancies.

In most cases of bacteriuria and urinary tract infection (UTI) in pregnancy, the prognosis is excellent.

Safe and Recommended

1. Amoxicillin
2. Amoxicillin-clavulanate
3. Nitrofurantoin
4. Cephalexin

Contraindicated

1. Fluoroquinolones e.g ciprofloxacin , levofloxacin
2. Tetracycline e.g Doxycycline
3. Trimethoprim-sulfamethoxazole e.g Bactrim

787. Which of the following is a marker for immature teratoma?

- A. AFP
- B. CA-125
- C. There is no marker for immature teratoma
- D. hCG

Answer: C

Ovarian Tumour Markers:
Epithelial cell – CA-125
Stromal/ Granulosa cell – inhibin
Sertoli-Leydig – androgens
Germ cell/Dysgerminoma – LDH
Yolk sac – AFP•
Choriocarcinoma – hCG
Immature Teratoma – none
Embryonal cell – AFP + -hCG

788. Which of the following is responsible for reducing the incidence of neural tube defects?

- A. Folate
- B. Vitamin B1
- C. Vitamin B12
- D. Vitamin D

Answer: A

Neural tube defects (NTD) occur because of a defect in the neurulation process. Since the anterior and posterior neuropores close last, they are the most vulnerable to defects.

Folate supplementation is currently advised for all pregnant women in an attempt to reduce the incidence of neural tube defects (NTDs).

NTDs can be classified, based on embryological considerations and the presence or absence of exposed neural tissue, as open or closed types.

1. Open NTDs frequently involve the entire CNS
2. Closed NTDs are localized and confined to the spine

789. Which of the following drugs can be used for hirsutism treatment in woman with polycystic ovary syndrome?

- A. Bumetanide
- B. Furosemide
- C. Hydrochlorothiazide
- D. Spironolactone

Answer: D

Other drugs with anti-androgen effects include flutamide, and spironolactone, which can give some improvement in hirsutism. Metformin can reduce hirsutism, perhaps by reducing insulin resistance, and is often used if there are other features such as insulin resistance, diabetes, or obesity that should also benefit from metformin.

790. A 78-year-old woman with chronic obstructive pulmonary disease, chronic hypertension, and history of myocardial infarction requiring angioplasty presents to your office for evaluation of something hanging out of her vagina. She had a hysterectomy for benign indications at age 48. For the past few months, she has been experiencing the sensation of pelvic pressure. Last month she felt a bulge at the vaginal opening. Two weeks ago something fell out of the vagina. On pelvic examination, the patient has total eversion of the vagina. There is an arc of superficial ulceration at the vaginal apex measuring 2 to 3 cm in diameter. Which of the following is the best next step in the management of this patient?

- A. Biopsy of the vaginal ulceration
- B. Place a pessary
- C. Prescribe oral estrogen
- D. Schedule abdominal sacral colpopexy

Answer: B

Vaginal vault prolapse occurs in up to 18% of patients who have undergone hysterectomy. Symptoms include pelvic pressure, backache, and a mass protruding from the vagina. Depending upon the duration of the prolapse, the patient may also have vaginal ulcerations from the rubbing of the prolapsed vagina against the undergarments. This patient is a poor surgical candidate given her multiple medical problems; therefore abdominal sacral colpopexy is contraindicated. For the same reasons she should not be given oral estrogen treatment. The preferred treatment is to place a pessary to prevent the vagina from rubbing against clothing. The patient should also apply a topical estrogen cream to the lesion and the prolapsed vagina to help with healing of the ulcer. If the ulcer does not resolve, biopsy is indicated.

791. A 17-years-old pregnant woman at 34-35 weeks of pregnancy is delivered by ambulance to the hospital with complaints of a headache, visual impairment, muscle twitching, and seizures. Her blood pressure is 190/100 mm Hg. The condition of the fetus is not disturbed and there are no secretions from the genital organs. Which of the following is the most likely diagnosis in this woman?

- A. Eclampsia
- B. Epilepsy
- C. Hypertensive encephalopathy
- D. Meningoencephalitis

Answer: A

Eclampsia is the onset of seizures (convulsions) in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there are high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery. Most often it is during the second half of pregnancy. The seizures are of the tonic-clonic type and typically last about a minute. Following the seizure, there is typically either a period of confusion or coma.

Complications include aspiration pneumonia, cerebral hemorrhage, kidney failure, and cardiac arrest. Pre-eclampsia and eclampsia are part of a larger group of conditions known as hypertensive disorders of pregnancy.

792. In pregnant woman at 39 weeks of pregnancy, which was lying on the back, suddenly appeared shortness of breath, paleness of skin, cold sticky sweat. Her blood pressure is 90/60 mm Hg. Which of the following is the best treatment for this woman?

- A. IV 0,9% NaCl
- B. IV adrenaline
- C. IV glucocorticoids
- D. Lay the patient on her left side

Answer: D

Inferior vena cava syndrome (IVCS) or supine hypotensive syndrome is a result of obstruction of the inferior vena cava. It can be caused by invasion or compression by a pathological process or by thrombosis in the vein itself. It can also occur during pregnancy. Pregnancy can lead to problems with blood return due to high venous pressure in the lower limbs, failure of blood return to the heart, decreased cardiac output due to obstructions in inferior vena cava, sudden rise in venous pressure which can lead to placental separation, and a decrease in renal function. All of these issues can arise from lying in the supine position during late pregnancy which can cause compression of the inferior vena cava. Symptoms of late pregnancy inferior vena cava syndrome consist of intense pain in the right hand side, muscle twitching, drop of blood pressure, and fluid retention. Symptoms are usually transient and resolve with change in positioning, specifically left lateral position. With minimal compression of the vena cava by the gravid uterus, hemodynamic changes resulting in hypotension are mostly avoided. Studies have shown radiographic and physiologic improvement in aortocaval compression in the lateral compared to supine position. Pregnant women at more than 20 weeks gestation should be placed in the full left lateral position when recumbent. Left lateral position is preferred, but other options include left lateral tilt and manual displacement of the gravid uterus. Left lateral tilt to 15°–30° is achieved by placing a wedge under the right hip and is used in practice for labor and delivery as well as nonobstetric surgery in pregnant patients undergoing anesthesia to prevent supine hypotensive syndrome.

793. Five patients present for contraceptive counseling, each requesting that an IUD be inserted. Which of the following is a contraindication to the use of an IUD?

- A. Abnormalities of the uterus resulting in distortion of the cavity
- B. Chorioamnionitis during pregnancy 6 months ago
- C. History of Chlamydia infection treated 4 months ago
- D. History of loop electrocautery excision procedure of the cervix

Answer: A

A previous pregnancy with an IUD is not a contraindication to the use of an IUD. The risk of another pregnancy with the IUD in place is not increased. Previous cervical surgery in the face of a normal Pap smear and no cervical stenosis is not a contraindication to IUD use. The manufacturers list the following contraindications to the use of an IUD:

- (1) pregnancy or suspicion of pregnancy;
- (2) abnormalities of the uterus resulting in distortion of the uterine cavity;
- (3) acute pelvic inflammatory disease (PID) or history of PID unless there has been a subsequent uterine pregnancy;
- (4) untreated acute cervicitis or vaginitis, including bacterial vaginosis, until the infection is controlled;
- (5) postpartum endometritis or septic abortion within the past 3 months;
- (6) genital bleeding of unknown etiology;
- (7) known or suspected uterine or cervical neoplasia, or unresolved abnormal cytological smear;
- (8) multiple sexual partners for the woman or her partner; and
- (9) conditions that lead to increased susceptibility to infections such as (but not limited to) leukemia, AIDS, or intravenous drug use;
- (10) history of ectopic pregnancy or condition that would lead to ectopic pregnancy;
- (11) genital actinomycosis;
- (12) a previously inserted IUD that has not been removed;
- (13) copper allergy or Wilson disease (for IUDs that contain copper);
- (14) known or suspected breast cancer or acute liver disease or tumor (for levonorgestrel containing IUDs).

794. A 41-year-old G1P0 at 39 weeks, who has been completely dilated and pushing for 3 hours, has an epidural in place and remains undelivered. She is exhausted and crying and tells you that she can no longer push. Her temperature is 38.3°C (101°F). The fetal heart rate is in the 190 seconds with decreased variability. The patient's membranes have been ruptured for over 24 hours, and she has been receiving intravenous penicillin for a history of colonization with group B streptococcus bacteria. The patient's cervix is completely dilated and effaced and the fetal head is in the direct OA position and is visible at the introitus between pushes. Extensive caput is noted, but the fetal bones are at the +3 station. Which of the following is the most appropriate next step in the management of this patient?

- A. Attempt operative vaginal delivery.
- B. Deliver the patient by cesarean section.

- C. Encourage the patient to continue to push after a short rest.
- D. Rebolus the patient's epidural.

Answer: A

Indications for an operative vaginal delivery with a vacuum extractor or forceps occur in situations where the fetal head is engaged, the cervix is completely dilated, and there is a prolonged second stage, suspicion of potential fetal compromise, or need to shorten the second stage for maternal benefit. In this situation, all the indications for operative delivery apply. This patient has been pushing for 3 hours, which is the definition for prolonged second stage of labor in a nulliparous patient with an epidural. In addition, potential maternal and fetal compromise exists since the patient has the clinical picture of chorioamnionitis and the fetal heart rate is nonreassuring. It is best to avoid cesarean section since it would take more time to achieve and since the patient is infected.

795. A 34-year-old G3P2 delivers a baby by spontaneous vaginal delivery. She had scant prenatal care and no ultrasound, so she is anxious to know the sex of the baby. At first glance you notice female genitalia, but on closer examination the genitalia are ambiguous. Which of the following is the best next step in the evaluation of this infant?

- A. Chromosomal analysis
- B. Evaluation at 1 month of age
- C. Pelvic ultrasound
- D. Thorough physical examination

Answer: D

Ambiguous genitalia at birth is a medical emergency, not only for psychological reasons for the parents but also because hirsute female infants with congenital adrenal hyperplasia (CAH) may die if undiagnosed. CAH is an autosomally inherited disease of adrenal failure that causes hyponatremia and hyperkalemia because of lack of mineralocorticoids. A thorough physical examination is the best initial evaluation. While it will not give the definitive diagnosis of the sex, it can provide clues. Are the gonads palpable in the inguinal canal? Are the labia fused? Is there a vagina or pouch? Is there hyper- or hypotension, or signs of dehydration. Karyotype, electrolyte analysis, blood or urine assays for progesterone, 17 α -hydroxyprogesterone, and serum androgens such as dehydroepiandrosterone sulfate are essential to the workup. Pelvic ultrasound or MRI can detect ovaries or undescended testes, but that is not the first step in management. Laparotomy or laparoscopy is sometimes necessary for ectopic gonadectomy after puberty has occurred.

796. A 56-year-old woman presents to your office for her routine well-woman examination. She had a hysterectomy at age 44 for symptomatic uterine fibroids. She entered menopause at age 54 based on menopausal symptoms and an elevated FSH level. She started taking estrogen replacement therapy at that time for relief of her symptoms. She is fasting and would like to have her lipid panel checked while she is in the office today. You counsel the patient on the effects of estrogen therapy on her lipid panel. She should expect which of the following?

- A. A decrease in her triglycerides
- B. An increase in her HDL
- C. An increase in her LDL
- D. An increase in her total cholesterol

Answer: B

Estrogen use decreases total cholesterol and LDL and increases HDL and triglycerides.

797. A 39-year-old G2P1001 presents to your office for a routine OB visit at 30 weeks gestational age. Her first pregnancy was delivered 10 years ago and was uncomplicated. She had a normal vaginal delivery at 40 weeks and the baby weighed 6 lb. During this present pregnancy, she has not had any

complications, and she reports no significant medical history. She weighed 95 lb prior to pregnancy and she has gained 20 lb to date. She is a non-smoker and denies illicit drug use. Her anatomy scan was normal and her first trimester screen did not show an increased risk of chromosomal aneuploidies. Her blood pressure range has been 100 to 120/60 to 70 mm Hg. During her examination, you note that her fundal height measures only 26 cm. Which of the following is a most likely explanation for this patient's decreased fundal height?

- A. Autosomal trisomy
- B. Constitutionally small mother
- C. Poor weight gain
- D. Social deprivation

Answer: B

In a normal singleton pregnancy from about 18 to 36 weeks, the number of weeks of gestation should approximate the fundal height measurement. A fundal height measurement that is 2 to >3 cm less than expected, or small for dates, suggests the possibility that the patient's dates are incorrect, that oligohydramnios is present, or that the fetus has growth restriction or has undergone demise. The patient has heart tones so the pregnancy is still viable and the patient had a first trimester ultrasound so the dates are correct. She has not given a history of leakage of fluid nor does she have any risk factors for oligohydramnios. She is constitutionally small and mothers who weigh less than 100 lb prior to pregnancy have a two-fold increased risk of having a small-for-gestational age (SGA) infant. While poor maternal weight gain, especially in the second trimester, is associated with fetal growth restriction, the patient has gained 20 lb to date, which is adequate. Social deprivation such as smoking, alcohol or drug use is also associated with SGA, but not for this mother based on history. Fetuses with chromosomal aneuploidies such as trisomy 13, 16, 18 or 21 are associated with SGA but the patient has had a normal first trimester screen and anatomy scan. Chronic placenta hypoxia or uteroplacental insufficiency are typically associated with maternal conditions such as vascular disease, chronic renal insufficiency, pregestational diabetes, chronic hypertension, smoking, or preeclampsia.

798. A 32-year-old poorly controlled diabetic G2P1 is undergoing amniocentesis at 38 weeks for fetal lung maturity prior to having a repeat cesarean section. Which of the following laboratory tests results on the amniotic fluid would best indicate that the fetal lungs are mature?

- A. Lecithin/sphingomyelin ratio of 1.5:1
- B. Lecithin/sphingomyelin ratio of 2.0:1
- C. Phosphatidylglycerol is absent
- D. Phosphatidylglycerol is present

Answer: D

The lecithin-to-sphingomyelin (L/S) ratio in amniotic fluid is close to 1 until about 34 weeks of gestation, when the concentration of lecithin begins to rise. For pregnancies of unknown duration but otherwise uncomplicated, the risk of respiratory distress syndrome (RDS) is relatively minor when the L/S is at least 2:1. Maternal hypertensive disorders and fetal growth retardation may accelerate the rate of fetal pulmonary maturation, possibly as a result of chronic fetal stress. A delay in fetal pulmonary maturation is observed in pregnancies complicated by maternal diabetes or erythroblastosis fetalis. A risk of RDS of 40% exists with an L/S ratio of 1.5:2; when the L/S ratio is less than 1.5, the risk of RDS is 73%. When the L/S ratio is greater than 2, the risk of RDS is slight. However, when the fetus is likely to have a serious metabolic compromise at birth (eg, diabetes or sepsis), RDS may develop even with a mature L/S ratio (> 2.0). This may be explained by lack of PG, a phospholipid that enhances surfactant properties. The identification of PG in amniotic fluid provides considerable reassurance (but not an absolute guarantee) that RDS will not develop. Moreover, contamination of amniotic fluid by blood, meconium, or vaginal secretions will not alter PG measurements.

799. A 30-year-old pregnant female presents to the clinic complaining of numbness, pain, and paresthesia in her right palm. Her symptoms are worsened by activity. Which of the following is the best initial therapy?

- A. Decompression surgery
- B. Physical therapy
- C. Reassurance
- D. Wrist splinting

Answer: D

Carpal tunnel syndrome (CTS)

1. Syndrome resulting from median compression at the wrist
2. Risk factors: Pregnancy, rheumatoid arthritis (RA), diabetes mellitus (DM), acromegaly, hypothyroidism, obesity, overuse (activities requiring significant wrist motion, including typing, piano playing, writing, etc.)
3. Most common in persons 30 to 55 years of age; female > male.
4. It is commonly seen in individuals with history of repetitive hand movements.
5. Clinical features: wrist pain that radiates up arm and worsens with hand flexion and grasping, decreased hand strength, numbness in thumb and in index and middle fingers; decreased palmar two-point discrimination, except on the radial side of the palm

Treatment

1. The initial treatment of CTS involves neutral wrist position splinting and NSAIDs.
2. Local steroid injection is indicated in cases where wrist splinting is insufficient to relieve pain.
3. Surgical decompression is reserved for cases when conservative management fails.

800. A 34-year-old pregnant lady, complaining of amenorrhea, bleeding, and abdominal pain. Urinary b-hCG showed levels of 1600. Vaginal ultrasound examination has shown no intrauterine fetus. She was given methotrexate. One week later she still has abdominal pain despite analgesia. b-hCG done showed 6000 units. Which of the following is the best management for the patient?

- A. Continue methotrexate
- B. Exploratory laparoscopy
- C. Salpingectomy
- D. Salpingostomy

Answer: B

This woman most likely has an ectopic pregnancy. Indications for methotrexate treatment are fetus is less than 3,5 cm in diameter, no heart sounds, b-hCG < 6000, no B9 supplementation. Contraindications for methotrexate are immunodeficiency, hepatotoxicity, more than 3,5cm fetus, auscultated heart rate. Our patient has b-hCG > 6000 so exploratory laparoscopy would be the best next step for her.

801. A 26-year-old G1 at 37 weeks presents to the hospital in active labor. She has no medical problems and has a normal prenatal course except for fetal growth restriction. She undergoes an uncomplicated vaginal delivery of a female infant weighing 1950 g. The infant is at risk for which of the following complications?

- A. Anemia
- B. Hyperglycemia
- C. Hypertension
- D. Hypoxia

Answer: D

Fetuses that are growth-restricted often have difficulty transitioning to the extrauterine environment. Therefore, it is critical that neonatologists be present at such deliveries. Growth-restricted fetuses more commonly pass meconium; therefore aspiration is a concern at the time of delivery. In addition, growth-restricted fetuses compensate for poor placental oxygen transfer by having a polycythemia that can then result in multiorgan thrombosis at or after birth. At the time of delivery, such infants may suffer from hypoxia caused by placental insufficiency. Infants with IUGR have less subcutaneous fat deposition; therefore, hypothermia and hypoglycemia are a potential concern.

802. Which of the following would have the baby immediately after delivery?

- A. Artificially acquired active immunity
- B. Artificially acquired passive immunity
- C. Naturally acquired active immunity
- D. Naturally acquired passive immunity

Answer: D

Passive immunity is the transfer of active immunity, in the form of readymade antibodies, from one individual to another. Passive immunity can occur naturally, when maternal antibodies are transferred to the fetus through the placenta, and can also be induced artificially when high levels of human (or horse) antibodies specific for a pathogen or toxin transferred to non-immune individuals.

Passive immunization is used when there is a high risk of infection and insufficient time for the body to develop its own immune response, or to reduce the symptoms of ongoing or immunosuppressive diseases. Passive immunity provides immediate protection, but the body does not develop memory, therefore the patient is at risk of being infected by the same pathogen later.

Naturally acquired passive immunity.

Maternal passive immunity is a type of naturally acquired passive immunity and refers to antibody-mediated immunity conveyed to a fetus by its mother during pregnancy. Maternal antibodies (MatAb) are passed through the placenta to the fetus by a FcRn receptor on placental cells. This occurs around the third month of gestation. IgG is the only antibody isotype that can pass through the placenta. Passive immunity is also provided through the transfer of IgA antibodies found in breast milk that are transferred to the gut of the infant, protecting against bacterial infections, until the newborn can synthesize its own antibodies.

803. A quiet 11-year-old boy is presented by her mother to the clinic told because the mother is concerned about his sexual development. You examined him and have found that his penis is around 6cm and hair on the pubic hair becomes more coarse and curly and begins to extend laterally. Which of the following is the correct Tanner stage for this boy?

- A. Tanner I
- B. Tanner II
- C. Tanner III
- D. Tanner IV

Answer: C

The Tanner scale (also known as the Tanner stages) is a scale of physical development in children, adolescents and adults. The scale defines physical measurements of development based on external primary and secondary sex characteristics, such as the size of the breasts, genitals, testicular volume and development of pubic hair. Tanner I testicular volume less than 1.5 ml; small penis of 3 cm or less (prepubertal) (typically age nine and younger) Tanner II testicular volume between 1.6 and 6 ml; skin on scrotum thins, reddens and enlarges; penis length unchanged (9–11) Tanner III testicular volume between 6 and 12 ml; scrotum enlarges further; penis begins to lengthen to about 6 cm (11–12.5) Tanner IV testicular volume between 12 and 20 ml; scrotum enlarges further and darkens; penis increases in length to 10 cm (12.5–14) Tanner V testicular volume greater than 20 ml; adult scrotum and penis of 15 cm in length (14+) Tanner I no pubic hair at all (prepubertal) (typically age 10 and younger) Tanner II small amount of long, downy hair with slight pigmentation at the base of the penis and scrotum (males) or on the labia majora (females) (10–11.5) Tanner III hair becomes more coarse and curly, and begins to extend laterally (11.5–13) Tanner IV adult-like hair quality, extending across pubis but sparing medial thighs (13–15) Tanner V hair extends to medial surface of the thighs (15+).

804. A woman complains of depression, poor sleep quality, and breast tenderness. These symptoms occur on a monthly basis, about 2 weeks before menstruation. Her symptoms greatly improve with menses. Which of the following is the most likely diagnosis in this woman?

- A. Paramenstrual syndrome
- B. Perimenstrual syndrome
- C. Postmenstrual syndrome
- D. Premenstrual syndrome

Answer: D

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Often symptoms are present for around six days. A woman's pattern of symptoms may change over time. Symptoms do not occur during pregnancy or following menopause. Antidepressants SSRIs like fluoxetine, sertraline can be used to treat severe PMS. Women with PMS may be able to take medication only on the days when symptoms are expected to occur. Although intermittent therapy might be more acceptable to some women, this might be less effective than continuous regimens.

805. A warm, fluctuant mass that is unilateral in the posterolateral portion of the labia majora. The patient states that palpation is painful. The surrounding tissue is inflamed and edematous. Which of the following is the most likely diagnosis?

- A. Bartholin's abscess
- B. Bartholin's cyst
- C. Cystocele
- D. Genital herpes
- E. Rectocele

Answer: A

A Bartholin's cyst occurs when a Bartholin's gland is blocked and the gland becomes inflamed. Sizes range from that of a pea to that of an egg and form just within each side of the lower part of the opening of the vagina. An abscess may form if the cyst becomes infected. In this case it often becomes red and painful when touched.

806. A 27-year-old has just had an ectopic pregnancy. Which of the following events would be most likely to predispose to ectopic pregnancy?

- A. Induction of ovulation
- B. Pelvic inflammatory disease (PID)
- C. Previous cervical conization
- D. Use of a contraceptive uterine device (IUD)

Answer: B

Any factor delaying transit of the ovum through the fallopian tube may predispose a patient to ectopic pregnancy. The major predisposing factor in the development of ectopic pregnancy is pelvic inflammatory disease. Nine percent of women after one episode of salpingitis will have an ectopic pregnancy. However, any operative procedure on the fallopian tubes, such as tubal ligation or surgery to relieve infertility or previous ectopic, increase a patient's risk. It appears that tubal sterilizations with laparoscopic fulguration have a higher rate of ectopic pregnancy than tubal ligations performed with clips or rings. Women who have had one ectopic pregnancy are at increased risk of having a second. DES (diethylstilbestrol) exposure, use of assisted reproductive technology (ART), and IUD use increase the possibility of ectopic pregnancy.

807. A woman in her first pregnancy delivers a 6-lb male infant at 38 weeks. The infant develops fever, vesicular rash, poor feeding, and listlessness at 1 week of age. What is the most likely cause of the infant's signs and symptoms?

- A. Cytomegalovirus
- B. Group B streptococcus
- C. Hepatitis B
- D. Herpes simplex

Answer: D

Neonatal herpes infection has three forms: disseminated with involvement of major organs; localized, with involvement confined to the central nervous system; and asymptomatic. A 50% risk of neonatal infection occurs with primary maternal infection, but only 4% to 5% risk with recurrent outbreaks. Postnatal infection can occur through contact with oral and skin lesions. Neonatal infection presentation is nonspecific, with signs and symptoms such as irritability, lethargy, fever, and poor feeding. Less than 50% of infants do not have skin lesions.

808. A 63-year-old woman with past history of stage II breast cancer presents for follow up. She was treated with lumpectomy, adjuvant chemotherapy, and localized radiotherapy. She completed five years of

tamoxifen with no recurrence of the disease. DEXA scan reveals severe osteoporosis (T-score ≤ -2.5). Which of the following is the best therapeutic option?

- A. Alendronate
- B. Calcitonin
- C. Calcium supplement
- D. Hormone replacement therapy
- E. Vitamin D3

Answer: A

Osteoporosis is a common problem that causes bones to become abnormally thin, weakened, and easily broken (fractured). Women are at a higher risk for osteoporosis after menopause due to lower levels of estrogen, a female hormone that helps to maintain bone mass. People with the highest risk of fracture are the ones most likely to benefit from drug therapy. In the United States, the National Osteoporosis Foundation (NOF) recommends use of a medication to treat postmenopausal women (and men ≥ 50 years) with a history of hip or vertebral fracture or with osteoporosis (T-score ≤ -2.5). Bisphosphonates — Bisphosphonates are medications that slow the breakdown and removal of bone. They are widely used for the prevention and treatment of osteoporosis in postmenopausal women. These drugs need to be taken first thing in the morning on an empty stomach with a full 8 oz glass of plain (not sparkling) water. The person must then wait: at least half an hour with alendronate and risedronate before eating or taking any other medications. Calcitonin is a hormone produced by the thyroid gland that, together with parathyroid hormone (PTH), helps to regulate calcium concentrations in the body. Other drugs are usually recommended in preference to calcitonin because other available drugs (eg, bisphosphonates) are more effective for the prevention of bone loss and reduction of fracture risk.

809. A 17-year-old girl is complaining of pain in her left breast for 3 months. On exam, you palpate two small 1-cm round rubbery masses in the right lower quadrant of her left breast. The masses are tender and noncompressible. No nodes are palpated in either axilla. Which of the following is the most likely diagnosis?

- A. Carcinoma of the breast
- B. Cyst
- C. Fibroadenoma
- D. Fibrocystic change

Answer: C

1. **Fibroadenoma** classically presents as a discrete, firm, nontender, and highly mobile breast nodule.
2. The most common adolescent breast disorder is breast mass, the majority of which are fibroadenomas or benign cysts.
3. A clue to the diagnosis is a mass thatâ€™s highly mobile on clinical exam.
4. Fibroadenomas are made up of stromal and epithelial cells.
5. No treatment is necessary. Surgical removal can be done if the mass is growing.

810. A 34-years-old woman with diabetes mellitus comes for a medical consultation. She worries about her future pregnancy. Which of the following could substantially reduce the risk of congenital anomalies in the fetus?

- A. Amniocentesis in the second trimester
- B. Regular checkup
- C. Tight control of blood glucose
- D. regular ultrasound examination

Answer: C

Tight control of blood glucose prior to conception can substantially reduce the risk of congenital anomalies in the fetus.

811. A 29-year-old G2 P1001 in her third trimester presents to the clinic for a routine check-up. You take her vitals and note that her blood pressure is elevated to 150/95. On the interview, she complains about some mild RUQ pain that she has had for the last few days. You confirm this on physical exam and also take note of facial puffiness. A urine dipstick in the office shows 3+ proteinuria. What are the laboratory features of the particular syndrome this patient has likely developed?

- A. Elevated BUN and elevated creatinine
- B. Elevated fasting glucose level and elevated liver enzymes
- C. Low platelet count and elevated liver enzymes
- D. Low platelet count and elevated magnesium level
- E. Low white blood cell count and elevated liver enzymes

Answer: C

HELLP syndrome is a life-threatening pregnancy complication usually considered to be a variant or complication of pre-eclampsia. Both conditions usually occur during the later stages of pregnancy, or sometimes after childbirth. "HELLP" is an abbreviation of the three main features of the syndrome: Hemolysis, Elevated Liver enzymes, and Low Platelet count. The syndrome may be associated with serious liver manifestations, including the death of liver cells due to inadequate blood flow and oxygen delivery, bleeding, and rupture.

812. You see a 42-year-old patient in your office who is now 5 weeks pregnant with her fifth baby. She is very concerned regarding the risk of Down syndrome because of her advanced maternal age. After extensive genetic counseling, she has decided to undergo a second-trimester amniocentesis to determine the karyotype of her fetus. You must obtain informed consent prior to the procedure. During your discussion you should tell the patient which of the following?

- A. Amniocentesis has not been associated with fetal limb reduction defects.
- B. Chorioamnionitis, although an uncommon complication of amniocentesis, can be treated with broad spectrum oral antibiotics.
- C. Fetal loss rate after amniocentesis is around 5%.
- D. Transient leakage of amniotic fluid is common after amniocentesis so she should not be concerned if she notices a watery vaginal discharge for a few days.

Answer: A

Amniocentesis performed in the second trimester has been associated with a 1% to 2% risk of amniotic fluid leakage, a fetal loss rate of less than 0.5%, transient transvaginal spotting, a less than 0.1% risk of chorioamnionitis, and a rare risk of cell culture failure. Chorioamnionitis, if it occurs, cannot successfully be treated with oral antibiotics. There has not been an association of amniocentesis in the second trimester with fetal limb reduction defects. Chorionic villus sampling performed at a gestational age of less than 9 weeks has been associated with fetal limb reduction defects.

813. The woman comes with complaints of vitiligo on her body. Which of the following is the initial method of treatment of this disease?

- A. Melanin transfer
- B. Monobenzene
- C. Phototherapy
- D. Tacrolimus

Answer: D

There is no cure for vitiligo but several treatment options are available. The best evidence is for applied steroids and the combination of ultraviolet light in combination with creams. Due to the higher risks of skin cancer, the United Kingdom's National Health Service suggests phototherapy only be used if primary treatments are ineffective. Lesions located on the hands, feet, and joints are the most difficult to repigment; those on the face are easiest to return to the natural skin color as the skin is thinner in nature. Topical preparations of immune suppressing medications including glucocorticoids (such as 0.05% clobetasol or 0.10% betamethasone) and calcineurin inhibitors (such as tacrolimus or pimecrolimus) are considered to be first-line vitiligo treatments. Phototherapy is considered a second-line treatment for vitiligo. The removal of all the skin pigment with monobenzene is permanent and vigorous.

814. A 31-year old female comes with complaints of abdominal pain. During the examination, there is the tender nodular retroverted uterus. Which of the following is the most accurate investigation for the diagnosis?

- A. D&C
- B. Hysteroscopy
- C. Laparoscopy
- D. hysterosalpingiogram

Answer: C

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

815. In a 34-years-old woman who complained of a headache, suddenly was begun twitching of the face and tonic and clonic seizures. She came to consciousness in 2 minutes. Before this episode nearly 2 weeks ago she noticed puffiness of the face. Her blood pressure is -190/120 mm Hg and urine protein is 3 g / L. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Epilepsy
- C. Hypertensive crisis
- D. Preeclampsia of severe severity

Answer: A

Eclampsia is the onset of seizures (convulsions) in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there is high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery. Most often it is during the second half of pregnancy. The seizures are of the tonic-clonic type and typically last about a minute. Following the seizure there is typically either a period of confusion or coma. Complications include aspiration pneumonia, cerebral hemorrhage, kidney failure, and cardiac arrest. Pre-eclampsia and eclampsia are part of a larger group of conditions known as hypertensive disorders of pregnancy.

816. A 24-yearl old pregnant woman at 18 week of pregnancy with diabetic nephropathy comes to initial check-up. Her blood pressure is 150/90 mmHg and urine dipstick reveals +1 protein. Which of the following is the best next step for this patient?

- A. Candesartan
- B. Enalapril
- C. Hydrochlorothiazide
- D. Methyldopa

Answer: D

Methyldopa is a drug of first choice for control of mild to moderate hypertension in pregnancy. Oral hydralazine, a direct vasodilator, is effective as monotherapy or as add-on therapy to methyldopa in the long term management of chronic hypertension in pregnancy. The available data are insufficient to rule out unrecognised adverse effects of early and prolonged use of β -blockers in pregnancy.

Reference: http://www.medscape.com/viewarticle/406535_6

817. A 32-year-old G1P0 woman reports to your office for a routine OB visit at 14 weeks gestational age. Labs drawn at her first prenatal visit 4 weeks ago revealed a platelet count of 60,000. All her other labs were within normal limits. During the present visit, the patient has a blood pressure of 120/70. Her urine dip reveals the presence of trace protein. The patient denies any complaints. The only medication she is currently taking is a prenatal vitamin. On taking a more in-depth history you learn that, prior to pregnancy, your patient had a history of the occasional nose and gum bleeds, but no serious bleeding episodes. She has considered herself to be a person who just bruises easily. Which of the following is the most likely diagnosis?

- A. Alloimmune thrombocytopenia
- B. Gestational thrombocytopenia
- C. HELLP syndrome
- D. Immune thrombocytopenic purpura
- E. Pregnancy-induced hypertension

Answer: D

Immune thrombocytopenia (ITP) is a type of thrombocytopenic purpura defined as isolated low platelet count (thrombocytopenia) with normal bone marrow and the absence of other causes of thrombocytopenia. It causes a characteristic purpuric rash and an increased tendency to bleed. Two distinct clinical syndromes manifest as an acute condition in children and a chronic condition in adults. The acute form often follows an infection and has a spontaneous resolution within two months. Chronic immune thrombocytopenia persists longer than six months with a specific cause being unknown.

818. Which of the following is the cause of ectopic pregnancy at the cellular level?

- A. Disappearance of zona pellucida
- B. Fast division of blastomere
- C. Fertilization at ampulla tube
- D. Persistence of Zona pellucida

Answer: A

As cilia degenerate the amount of time it takes for the fertilized egg to reach the uterus will increase. The fertilized egg, if it doesn't reach the uterus in time, will hatch from the non-adhesive zona pellucida and implant itself inside the fallopian tube, thus causing the pregnancy.

Reference: Wikipedia and Clinical reproductive medicine & surgery book - textbook of clinical embryology

819. A 22-year-old primigravid woman comes to the labor and delivery ward at term with regular, painful contractions. Her prenatal course was unremarkable. She has a past medical history significant for mitral valve prolapse with regurgitation demonstrated on echocardiography. She takes no medications and has no allergies to medications. Examination shows that her cervix is 4 centimeters dilated and the fetus is in vertex presentation. The fetal heart rate is reassuring. Which of the following is the most appropriate management of this patient ?

- A. Administer intravenous antibiotics 30 minutes prior to the delivery.
- B. Administer intravenous antibiotics after the cord is clamped
- C. Administer intravenous antibiotics six hours after the delivery.
- D. Administer intravenous antibiotics throughout labor.
- E. Antibiotic prophylaxis is not necessary

Answer: E

Available evidence does not support the use of prophylactic antibiotics to reduce infectious morbidity following vaginal delivery.

<https://www.ncbi.nlm.nih.gov/pubmed/21050523>

820. A patient comes to your office with her last menstrual period 4 weeks ago. She denies any symptoms such as nausea, fatigue, urinary frequency, or breast tenderness. She thinks that she may be pregnant because she has not had her period yet. She is very anxious to find out because she has

a history of a previous ectopic pregnancy and wants to be sure to get early prenatal care. Which of the following actions is most appropriate at this time?

- A. Listen for fetal heart tones by Doppler equipment.
- B. No action is needed because the patient is asymptomatic, has not missed her period, and cannot be pregnant.
- C. Order a serum quantitative pregnancy test.
- D. Perform an abdominal ultrasound.

Answer: C

Nausea, fatigue, breast tenderness, and urinary frequency are all common symptoms of pregnancy, but their presence cannot definitively make the diagnosis of pregnancy because they are nonspecific and are not consistently found in early pregnancy. These symptoms may also be present just prior to menstruation. On physical examination, the pregnant uterus enlarges and becomes more boggy and soft, but these changes are not usually apparent until after 6 weeks gestational age. In addition, other conditions such as adenomyosis, fibroids, or previous pregnancies can result in an enlarged uterus palpable on physical examination. Abdominal ultrasound will not demonstrate a gestational sac until a gestational age of 5 to 6 weeks is reached nor will it detect an ectopic pregnancy at the time of the missed menstrual period. It is therefore not indicated in this patient. A Doppler stethoscope will detect fetal cardiac action usually no sooner than 10 weeks. A sensitive serum quantitative pregnancy test can detect HCG levels by 8 to 9 days postovulation, and it is therefore the most appropriate next step in the evaluation of this patient.

821. Which of the following is the most common cause of anemia in pregnancy?

- A. Folate deficiency
- B. Iron deficiency
- C. Vitamin B12 deficiency
- D. Vitamin K deficiency

Answer: B

1. With normal pregnancy, blood volume increases, which results in a concomitant hemodilution.
2. Although red blood cell (RBC) mass increases during pregnancy, plasma volume increases more, resulting in a relative anemia. This results in a physiologically lowered hemoglobin (Hb) level, hematocrit (Hct) value, and RBC count.
3. **Iron deficiency is the most common cause of anemia in pregnancy (75-95% of the cases of anemia in pregnant women)**
4. Clinical symptoms of iron deficiency anemia include fatigue, headache, restless legs syndrome, and pica (in extreme situations).
5. Treatment consists of additional supplementation with oral iron sulfate

Hemoglobin levels change during pregnancy.

1. Wanes in second trimester due to hemodilution
2. Increases in third trimester
3. Falls with delivery with placental separation

822. A 32-year-old G2P0101 at 20 weeks gestational age presents to the emergency room complaining of constipation and abdominal pain for the past 48 hours. The patient also admits to nausea and vomiting since the evening before. She denies a history of any medical problems. Her past surgical history is significant for an exploratory laparotomy for a stab wound to the abdomen at age 30 and a cesarean section for her first child at 28 weeks for malpresentation and preterm labor. The emergency room doctor who examines the patient calls you and reports that the patient has a low-grade fever of 37.7°C (100°F), with a normal pulse and blood pressure. The patient's abdomen is distended and mildly tender to palpation in all quadrants with high-pitched bowel sounds. She has no rebound tenderness. The patient's WBC is 13,000, and her electrolytes are normal. You recommend which of the following as the most appropriate next step in the management of this patient?

- A. The patient likely has appendicitis and should be prepped for the operating room immediately to have an emergent appendectomy.
- B. The patient likely has hyperemesis gravidarum and intravenous antiemetics should be administered to the patient.
- C. The patient should be reassured that her symptoms are likely due to reflux and should be given an antacid to alleviate the symptoms.
- D. The patient should be sent to radiology for an upright abdominal x-ray.

Answer: D

This patient's history and physical examination are consistent with an intestinal obstruction. An intestinal obstruction must be ruled out because, if it goes undiagnosed and untreated, it can result in a bowel perforation. This patient has a history of two previous abdominal surgeries, which places her at risk for intra-abdominal adhesions. Beginning in the second trimester, the gravid uterus can exert strain on such adhesions and result in bowel obstruction. Common symptoms of intestinal obstruction include colicky abdominal pain, nausea, and emesis. Signs of a bowel obstruction include abdominal tenderness and increased or decreased bowel sounds—depending on the duration of the obstruction. Fever and an elevated white blood cell count are present with bowel strangulation and necrosis. This patient has a mild leukocytosis, which is also characteristic of normal pregnancy. In order to rule out an intestinal obstruction, an upright or lateral decubitus abdominal x-ray should be done to identify the presence of distended loops of bowel and air-fluid levels which confirm the diagnosis. Treatment consists of bowel rest, intravenous hydration, and nasogastric suction; patients who do not respond to conservative therapy may require surgery.

Bowel stimulants such as laxatives or enemas should not be administered. Pregnant women are predisposed to constipation secondary to decreased bowel motility induced by elevated levels of progesterone. The symptoms of nausea and emesis in this patient and the presence of a low-grade fever prompt further workup because her presentation is not consistent with uncomplicated constipation. In pregnancy, constipation can be treated with hydration, increased fiber in the diet, and the use of stool softeners. The patient's sudden onset of emesis and abdominal pain is not consistent with the normal presentation of hyperemesis gravidarum. Hyperemesis typically has an onset in the early part of the first trimester and usually resolves by 16 weeks. It is characterized by intractable vomiting causing severe weight loss, dehydration, and electrolyte imbalance. The ingestion of spicy or fatty foods during pregnancy can cause or exacerbate gastric reflux, or "heart-burn," but would not cause the severity of the symptoms described in this patient's presentation. Reflux during pregnancy can be treated with antacids. The patient with gastric reflux in pregnancy should also be counseled to eat smaller, more frequent meals and bland food.

823. A 27-year-old woman, gravida 2, para 2, comes to the physician to have her staples removed after an elective repeat cesarean delivery. Her pregnancy course was uncomplicated. She states that she is doing well except that since the delivery she has noticed some episodes of sadness and tearfulness. She is eating and sleeping normally and has no strange thoughts or thoughts of hurting herself or others. Physical examination is within normal limits for a patient who is status post cesarean delivery. Which of the following is the most likely diagnosis?

- A. Maternity blues
- B. Postpartum depression
- C. Postpartum mania
- D. Postpartum psychosis
- E. Poststerilization depression

Answer: A

This woman most likely has Maternity blues. Maternity blues, also known as baby blues and postpartum blues, is a transient condition that 75-80% of mothers could experience shortly after childbirth with a wide variety of symptoms which generally involve mood lability, tearfulness, and some mild anxiety and depressive symptoms. Baby blues is not postpartum depression unless it is abnormally severe.

824. A pregnant woman at 39 weeks is admitted in labor at 5 cm dilated. The fetal heart rate tracing is reactive. Two hours later, she is reexamined and her cervix is unchanged at 5 cm dilated. An IUPC is placed and the patient is noted to have 280 Montevideo units (MUV) by the IUPC. After an additional 2 hours of labor, the patient is noted to still be 5 cm dilated. The fetal heart rate tracing remains reactive. Which of the following is the best next step in the management of this labor?

- A. Attempt delivery via vacuum extraction.
- B. Augment labor with Pitocin.
- C. Continue to wait and observe the patient.
- D. Perform a cesarean section.

Answer: D

The patient is having adequate uterine contractions as determined by the intrauterine pressure catheter. Therefore, augmentation with Pitocin is not indicated. The patient's diagnosis is secondary arrest of labor, which requires cesarean section. In the active phase of labor, a multiparous patient should undergo dilation of the cervix at a rate of at least 1.5 cm/h if uterine contractions are adequate. There is no indication for the use of vacuum or forceps in this patient because the patient's cervix is not completely dilated and the head is unengaged. Assisted vaginal delivery with vacuum or forceps is indicated when the patient is completely dilated, to augment maternal pushing when maternal expulsive efforts are insufficient to deliver the fetus. It is not recommended to continue to allow the patient to labor if dystocia is diagnosed, because uterine rupture is a potential complication.

825. Which of the following medications is safe during breast-feeding?

- A. Bromocriptine
- B. Ciprofloxacin
- C. Penicillin
- D. Tetracycline

Answer: C

Certain medications are contraindicated during breast-feeding, including quinolone antibiotics, tetracycline, chloramphenicol, bromocriptine, cyclosporine, cyclophosphamide, doxorubicin, methotrexate, lithium, and ergotamine.

Other drugs that have relative contraindications include metronidazole, sulfonamides, salicylates, phenobarbital, other psychotropic medication, and antihistamines.

Caffeine in large amounts should also be avoided. In addition, recreational drugs (e.g., alcohol, cocaine, marijuana) should be avoided.

826. During the active labor, there was found that the woman's pelvis is inappropriate because the fetus is too large. She is needed an emergency cesarean section. Which of the following is the best analgesia for this woman?

- A. Epidural
- B. General
- C. Paracervical
- D. Pudendal

Answer: B

Fetal distress. Options for C/S anesthesia: neuraxial: spinal or epidural- general: used if contraindicated or time precludes regional blockade. *She had to go for CS, epidural anesthesia is not possible if the cervix is dilated more than 5 cm. (confirmed by student get full mark in Oby/Gyne)References: Toronto notes 2017, A27.

827. A breastfeeding mother comes for a medical consultation. Which of the following is the absolute contraindication for breastfeeding?

- A. Bacterial vaginitis
- B. Infants with galactosemia
- C. Mastitis
- D. Smoking

Answer: B

Breastfeeding is NOT advisable if one or more of the following conditions is true: An infant diagnosed with galactosemia, a rare genetic metabolic disorder The infant whose mother: Has been infected with the human immunodeficiency virus (HIV) Is taking antiretroviral medications Has untreated, active tuberculosis Is infected with human T-cell lymphotropic virus type I or type II Is using or is dependent upon an illicit drug Is taking prescribed cancer chemotherapy agents, such as antimetabolites that interfere with DNA replication and cell division Is undergoing radiation therapies; however, such nuclear medicine therapies require only a temporary interruption in breastfeeding

828. A 25-year-old woman presents to you for routine well-woman examination. She has had two normal vaginal deliveries and is healthy. She smokes one pack of cigarettes per day. She has no gynecologic complaints. Her last menstrual period was 3 weeks ago. During the pelvic examination, you notice that her left ovary is enlarged to 5 cm in diameter. Which of the following is the best recommendation to this patient?

- A. Order CA-125 testing

- B. Return to the office in 1 to 2 months to recheck the ovaries
- C. Schedule a CT scan of the pelvis
- D. Schedule outpatient diagnostic laparoscopy

Answer: B

In young, menstruating women the most common reason for an enlargement of one ovary is the presence of a functional ovarian cyst. Functional cysts are physiologic, forming during the normal functioning of the ovaries. Follicular cysts are usually asymptomatic, unilateral, thin-walled, and filled with a watery, straw-colored fluid. Corpus luteum cysts are less common than follicular cysts. They are usually unilateral, but often appear complex, as they may be hemorrhagic. Patients with a corpus luteum cyst may complain of dull pain on the side of the affected ovary. Theca lutein cysts are the least common of the three types of functional ovarian cysts. They are almost always bilateral and are associated with pregnancy. Since the most common cause of a unilateral, asymptomatic ovarian cyst in a young, menstruating woman is a functional cyst, it is most reasonable to follow the patient conservatively and have her return after 1 to 2 months to recheck her ovary. More aggressive primary management with surgery is not indicated in a young, asymptomatic patient. CT scanning or pelvic ultrasonography may be indicated if the cyst is persistent. CA-125 is a cancer antigen expressed by approximately 80% of ovarian epithelial carcinomas. CA-125 testing is not very specific in women of childbearing age and is not useful for primary evaluation of an ovarian cyst in a young, asymptomatic patient. CA-125 testing is valuable in evaluating postmenopausal women with pelvic masses and in assessing treatment response in women undergoing treatment for CA-125 producing ovarian cancers.

829. Which of the following is associated with snowstorm appearance on ultrasound?

- A. Choriocarcinoma
- B. Complete hydatidiform mole
- C. Missed abortion
- D. Multiple Gestations

Answer: B

1. Hydatidiform mole is the most common form of gestational trophoblastic disease.

2. It is characterized by the presence of multiple hydropic villi which gives the ultrasonographic appearance of a central heterogeneous mass having a solid, hyper echoic area and interspersed with multitude of cystic areas and filling the entire uterine cavity.Â

3. **Ultrasound** is primarily used to rule out an intrauterine pregnancyÂ

4. Classic sonographic appearance of a complete mole:

â€œSnowstormâ€ or â€œgranularâ€ appearance

5. **Snowstorm sign** in obstetric imaging is classically **seen in complete hydatiform mole**

830. When pregnant women do glucose tolerance test?

- A. 12 weeks
- B. 16 weeks
- C. 20 weeks
- D. 28 weeks

Answer: D

Testing for gestational diabetes is usually done between 24 and 28 weeks of pregnancy. However, testing may be done earlier in the pregnancy if there are risk factors for gestational diabetes, such as:

- A history of gestational diabetes in a previous pregnancy
- Obesity
- Excess glucose (sugar) in urine
- A strong family history of diabetes

Reference:

http://care.diabetesjournals.org/content/26/suppl_1/s103

<https://www.uptodate.com/contents/gestational-diabetes-mellitus-beyond-the-basics>

831. A 26-year-old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the appropriate management of this patient?

- A. Analgesics, frequent breastfeeding and antibiotics
- B. Incision and drainage
- C. Needle biopsy
- D. Stop breastfeeding

Answer: A

Mastitis

1. Lactational mastitis: Common in the first few months of lactation.
2. It is mostly caused by *Staphylococcus aureus*, affects one quadrant and is treated with penicillinase resistant penicillin.
3. Mastitis is not a contraindication to breastfeeding.
4. Symptoms often begin 2–4 weeks postpartum; are usually unilateral; and include focal breast tenderness, erythema, edema, warmth, and possible purulent nipple drainage.
5. Treatment: Continued breast-feeding and PO antibiotics (e.g., penicillin, dicloxacillin, erythromycin).
6. Incision and drainage of breast abscess if present.

832. A 30-year-old woman at 37 weeks is brought to the emergency room with sudden vaginal bleeding, severe uterine contractions and back pain. Her past medical history is significant for hypertension. Fetal heart tracing is nonreassuring. Examination shows uterine tenderness and hyperactivity. Which of the following is the least likely a risk factor for this disease?

- A. Alcohol use
- B. Cocaine use
- C. Hypertension
- D. Trauma

Answer: A

Abruptio placentae 1. Premature separation of the placenta from uterine wall leading to significant maternal hemorrhage 2. Risk factors: HTN, prior abruptio placentae, trauma, tobacco use, cocaine use, PROM, multiple gestation, multiparity 3. Classic features of acute abruptio placenta include: Painful third trimester dark vaginal bleeding that does not spontaneously cease, abdominal pain, uterine contractions and uterine tenderness. The absence of blood on pelvic examination does not rule out this condition. 4. Ultrasound: inconsistently shows separation of placenta from uterus (normal ultrasound is most likely) 5. Treatment – Bed rest in inpatient setting for very mild cases – Delivery typically occurs rapidly secondary to uterine irritation, but caesarean section should be performed in cases of hemodynamic instability. 6. Transfusion is frequently required for significant hemorrhage. 7. Complications: DIC; severe hemorrhage that increases risk of maternal death.

833. A 21-year-old G0 presents to your office because her menses is 2 weeks late. She states that she is taking her birth control pills correctly; she may have missed a day at the beginning of the pack, but took it as soon as she remembered. She denies any medical problems, but 3 or 4 weeks ago she had a “viral stomach flu” and missed 2 days of work for nausea, vomiting, and diarrhea. Her cycles are usually regular even without contraceptive pills. She has been on the pill for 5 years and recently developed some midcycle bleeding, which usually lasts about 2 days. She has been sexually active with the same partner for the past 3 months and has a history of chlamydia 3 years ago. She has had a total of 10 sexual partners. A urine pregnancy test is positive. Which of the following is the major cause of unplanned pregnancies in women using oral contraceptives?

- A. Breakthrough ovulation at midcycle
- B. Gastrointestinal malabsorption
- C. High frequency of intercourse
- D. Incorrect use of oral contraceptives

Answer: D

The pregnancy rate with birth control pills, based on theoretical effectiveness, is 0.1%. However, the pregnancy rate in actual use is 0.7%. This increase is owing to incorrect use of the pills. Breakthrough ovulation on combination birth control pills, when the pills are taken correctly, is thought to be a very rare occurrence. Unintended pregnancy in women correctly using oral contraceptive pills is not related to sexual frequency, gastrointestinal disturbances, or the development of antibodies.

834. Which of the followings drugs is used for the treatment of gestational hypertension?

- A. Clonidine
- B. Enalapril
- C. Hydrochlorothiazide
- D. Methyldopa

Answer: D

Drug treatment options are limited, as many antihypertensives may negatively affect the fetus. Methyldopa, hydralazine, and labetalol are most commonly used for severe pregnancy hypertension.

835. The complication of Infectious mononucleosis is:

- A. Burkitt lymphoma
- B. Malignancy
- C. Parotitis
- D. Splenic rupture

Answer: D

Infectious mononucleosis is caused by Epstein-Barr virus (EBV, human herpesvirus type 4) and is characterized by fatigue, fever, pharyngitis, and lymphadenopathy. Fatigue may persist weeks or months. Severe complications, including airway obstruction, splenic rupture, and neurologic syndromes, occasionally occur. Diagnosis is clinical or with EBV serologic testing. Treatment is supportive

836. A patient with polycystic ovarian syndrome is at greater risk of which of the following conditions?

- A. Breast cancer
- B. Endometrial carcinoma
- C. Ovarian cancer
- D. Vaginal cancer

Answer: B

Polycystic ovary syndrome is a clinical syndrome characterized by mild obesity, irregular menses or amenorrhea, and signs of androgen excess (eg, hirsutism, acne). In most patients, the ovaries contain multiple cysts.

Patients with PCOS are at high risk to develop endometrial hyperplasia and endometrial carcinoma due to unbalanced estrogen secretion.

The major features of PCOS include menstrual dysfunction, anovulation, and signs of hyperandrogenism.

Other signs and symptoms of PCOS may include the following:

1. Hirsutism
2. Infertility
3. Obesity and metabolic syndrome
4. Diabetes
5. Obstructive sleep apnea

On examination, findings in women with PCOS may include the following:

1. Virilizing signs
2. Acanthosis nigricans
3. Hypertension
4. Enlarged ovaries: May or may not be present; evaluate for an ovarian mass

Lifestyle modifications are considered first-line treatment for women with PCOS. Such changes include the following:

1. Diet
2. Exercise
3. Weight loss

Pharmacologic treatments are reserved for so-called metabolic derangements, such as anovulation, hirsutism, and menstrual irregularities. First-line medical therapy usually consists of an oral contraceptive to induce regular menses.

837. Which of the following is the mechanism of action of Levonorgestrel emergency contraceptives?

- A. Delays fertilization
- B. Prevents a ovulation
- C. Prevents fertilization
- D. Prevents implantation

Answer: D

The primary mechanism of action of progestogen-only emergency contraceptive pills is to prevent fertilization by inhibition of ovulation. Levonorgestrel emergency contraceptive pills (based on labels for regular oral contraceptive pills) say they may cause endometrial changes that discourage implantation.

838. Which of the following drugs inhibit the conversion of androgens to estrogens?

- A. 5 α -Reductase inhibitors
- B. Aromatase inhibitors
- C. COMT inhibitors
- D. Lipoxygenase inhibitors

Answer: B

Aromatase inhibitors (AIs) are a class of drugs used in the treatment of breast cancer in postmenopausal women and gynecomastia in men. They may also be used off-label to reduce estrogen conversion when using external testosterone. They may also be used for chemoprevention in high risk women. Aromatase is the enzyme that synthesizes estrogen. As breast and ovarian cancers require estrogen to grow, AIs are taken to either block the production of estrogen or block the action of estrogen on receptors. Aromatase inhibitors work by inhibiting the action of the enzyme aromatase, which converts androgens into estrogens by a process called aromatization. As breast tissue is stimulated by estrogens, decreasing their production is a way of suppressing recurrence of the breast tumor tissue. The main source of estrogen is the ovaries in premenopausal women, while in postmenopausal women most of the body's estrogen is produced in peripheral tissues (outside the CNS), and also a few CNS sites in various regions within the brain. Estrogen is produced and acts locally in these tissues, but any circulating estrogen, which exerts systemic estrogenic effects in men and women, is the result of estrogen escaping local metabolism and spreading to the circulatory system.

839. A patient is receiving external beam radiation for treatment of metastatic endometrial cancer. The treatment field includes the entire pelvis. Which of the following tissues within this radiation field is the most radiosensitive?

- A. Bladder
- B. Ovary
- C. Rectovaginal septum
- D. Vagina

Answer: B

Different tissues tolerate different doses of radiation, but the ovaries are by far the most radiosensitive. They tolerate up to 2500 rads, while the other tissues listed tolerate between 5000 and 20,000 rads. Acute evidence of excessive radiation exposure includes tissue necrosis and inflammation, resulting in enteritis, cystitis, vulvitis, proctosigmoiditis, and possible bone marrow suppression. Chronic effects of excessive radiation exposure are manifest months to years after therapy and include vasculitis, fibrosis, and deficient cellular regrowth; these can result in proctitis, cystitis, fistulas, scarring, and stenosis. Successful radiation depends on (1) the greater sensitivity of the cancer cell compared with normal tissue and (2) the greater ability of normal tissue to repair itself after irradiation. The maximal resistance to ionizing radiation depends on an intact circulation and adequate cellular oxygenation. Resistance also depends on total dose, number of portions, and time intervals. The relative resistance of normal tissue (cervix and vagina) in cervical cancer allows high surface doses approaching 15,000 to 20,000 rads to be delivered to the tumor with intracavitary devices, and, because of the inverse square law, significantly lower doses of radiation reach the bladder and rectum. The greater the fractionalization (number of portions the total dose is broken into), the better the normal tissue tolerance of that radiation dose; hence 5000 rads of pelvic radiation is usually given in daily fractions over 5 weeks, with approximately 200 rads being administered each day.

840. A 27-year-old woman is giving birth. During the birth, the placental membranes tear and amniotic fluid is expressed into a lacerated cervical vein. Which of the following is the woman most likely to experience immediately following this event?

- A. Hemiplegia
- B. Placental abruption
- C. Renal failure
- D. Respiratory distress
- E. Splinter hemorrhages

Answer: D

This woman most likely has an amniotic fluid embolism. An amniotic fluid embolism is a rare obstetric emergency in which amniotic fluid, enters the bloodstream of the mother to trigger a serious reaction. This reaction then results in cardiorespiratory collapse and massive bleeding (coagulopathy).

841. What is the preferred pelvis shape for vaginal delivery?

- A. Android
- B. Anthropoid
- C. Gynecoid
- D. Platypelloid

Answer: C

The female pelvis, or gynecoid pelvis, has evolved to its maximum width for childbirth — a wider pelvis would make women unable to walk. In contrast, human male pelvises are not constrained by the need to give birth and therefore are more optimized for bipedal locomotion.

842. Which of the following is the most important during the first antenatal visit of a woman in her 10th-week of gestation?

- A. Assess risk factors
- B. Determine the fetal age
- C. Determine the fetal size
- D. Determine the fetal weight

Answer: A

The most important during first antenatal visit is assess the risk factors.

Women with one or more of the following risk factors should be referred to the consultant led care

General: Maternal age 40 and over at EDD

Maternal age 16 and under at booking

Grand multiparity (more than six deliveries at >24 weeks)

Late booker >24 weeks if unknown/uncertain LMP

In Vitro Fertilisation (IVF) with ICSI or donor egg

Body Mass Index (BMI) >35 kg/m² at booking

Women with BMI >45 should be referred at booking to healthy lifestyle ANC.

Women who decline blood or blood product

Tocophobia (pathological fear of childbirth)

[https://www.google.com.ua/url?](https://www.google.com.ua/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0ahUKEv)

[sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0ahUKEv](https://www.google.com.ua/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0ahUKEv)

843. A nullipara with gestational diabetes is in labor. She has normal uterine contraction. During labor, she is in full extension and one nurse push the baby from fundus and the other nurse push the above symphysis pubis. There was no effect so the doctor did an episiotomy. Which of the following was incorrect maneuver by personal?

- A. Episiotomy
- B. Full extension
- C. Fundal pressure
- D. Pushing symphysis pubic

Answer: C

The mother is aiabetic so probably the baby have macrosomia and might as well having shoulder dystocia making the delivery difficult. Fundal pressure is never appropriate and only serves to worsen the impaction, potentially injuring the fetus or mother.

References:

<http://www.aafp.org/afp/2004/0401/p1707.html>

844. A woman has a symptomatic swelling in the labia majora for 6 months. It was aspirated and now it is relapsed. Which of the following is the best for this woman?

- A. Aspiration
- B. Drainage
- C. Marsupialization
- D. Oral antibiotics

Answer: C

This woman has Bartholin cyst. It should be drained with a simple incision and drainage. Nevertheless, if it continued to recur, then Marsupialization should be done.

Reference: Master the board.

845. Which of the following is the most common cause of unilateral nonbloody nipple discharge?

- A. Ductal carcinoma in situ
- B. Fibroadenoma
- C. Intraductal papilloma
- D. Invasive lobular carcinoma

Answer: C

Intraductal papilloma

1. Benign lesions of ductal tissue that may have malignant potential
2. **Presents** with bloody or nonbloody discharge from nipple on stimulation, breast pain; palpable mass behind areola
3. **The most common cause of unilateral non-bloody nipple discharge is intraductal papilloma.**
4. **Diagnosis** :excisional biopsy used to rule out cancer; ductal lavage by microcatheter can be used to test for abnormal intraductal cells and is more accurate than examination of aspirated nipple fluid.
5. **Treatment** :surgical excision

846. A 32-year-old gravida 3 para 2 presents with fever of 39 C, a pain in her flank and chills. On examinations, there is slight bilateral costovertebral angle tenderness. Lab results reveal positive urinalysis (presence of nitrites and white blood cells). Which of the following is the treatment of choice for this patient?

- A. Ciprofloxacin
- B. Doxycycline
- C. Levofloxacin
- D. Trimethoprim/sulfamethoxazole

Answer: A

Pyelonephritis1. Patient presents with urinary frequency, urgency, burning, and dysuria in the2. same way as cystitis, and there is flank pain and tenderness. Pyelonephritis3. is also a more severe disease, so there is a higher fever and the patient is much4. more ill.5. Diagnostic: Urinalysis and urine culture the same as for cystitis6. Treatment: Any of the medications for gram-negative bacilli are effective. Ciprofloxacin is recommended for outpatient treatment. 7. For inpatient therapy use ceftriaxone, ertapenem, quinolones, ampicillin, and gentamicin.8. Sulfonamides are contraindicated late in pregnancy because they may increase the incidence of kernicterus. 9. Tetracyclines are contraindicated because administration late in pregnancy may lead to discoloration of the child's deciduous teeth.10. Nitrofurantion may induce hemolysis in women who are deficient in G6PD,

847. How much normal blood loss during menses?

- A. 100 mL
- B. 130 mL
- C. 160 mL
- D. 70 mL

Answer: D

A normal menstrual cycle is 21–35 days in duration, with bleeding lasting an average of 5 days and total blood flow between 25 and 80 mL.

848. A woman is brought to the emergency room with diffuse abdominal pain, uterine and adnexal tenderness and lightheadedness. Her past medical history is significant for pelvic inflammatory disease. Her temperature is 37 C, blood pressure is 90/60 mm Hg, pulse is 125/min, and respirations are 18/min. Which of the following is the most likely diagnosis?

- A. Normal pregnancy
- B. Placenta previa
- C. Ruptured ectopic pregnancy
- D. Threatened abortion

Answer: C

Ectopic pregnancy (EP)

1. Implantation of zygote outside of uterus
2. Ruptured ectopic pregnancy presents with diffuse abdominal pain, cervical and adnexal tenderness, lightheadedness, and hemodynamic instability.
3. Most commonly occurs in ampulla of fallopian tube (95% of cases)

Risk factors of EP:

1. Pelvic inflammatory disease
2. Gynecologic surgery
3. Prior ectopic pregnancy
4. Sexually transmitted diseases
5. Smoking

The classic clinical triad of ectopic pregnancy is as follows:

1. Abdominal pain
2. Amenorrhea
3. Vaginal bleeding

The presence of the following signs suggests a surgical emergency:

1. Abdominal rigidity
2. Involuntary guarding
3. Severe tenderness
4. Evidence of hypovolemic shock (eg, orthostatic blood pressure changes, tachycardia)

Management:

1. Ruptured ectopic pregnancy: Immediate laparotomy/salpingectomy
2. Unruptured ectopic pregnancy: Methotrexate or salpingostomy.

849. A 24-year-old pregnant woman (12w) presents to her primary care physician with fatigue and shortness of breath. Laboratory values: Hb=7 g/dL; MCV=70 fL; Hematocrit =40% Total iron-binding capacity (TIBC)=140 ; Ferritin=5 ng/mL). What is the most likely diagnosis?

- A. Anemia of chronic disease
- B. Iron deficiency
- C. Physiological
- D. Thalassemia

Answer: B

This woman most likely has Iron deficiency anemia based on the laboratory findings (low Hb, low MCV, high TIBC, low ferritin. Thalassemia and physiological have normal iron studies. Anemia of chronic disease has low TIBC and high ferritin levels.

850. A 24-year-old primigravid woman, who is intent on breast-feeding, decides on a home delivery. Immediately after the birth of a 4.1-kg (9-lb) infant, the patient bleeds massively from extensive vaginal and cervical lacerations. She is brought to the nearest hospital in shock. Over 2 hours, 9 units of blood are transfused, and the patient's blood pressure returns to a reasonable level. A hemoglobin value the next day is 7.5 g/dL, and 3 units of packed red blood cells are given. The most likely late sequela to consider in this woman is which of the following?

- A. Hemochromatosis
- B. Sheehan syndrome
- C. Simmonds syndrome
- D. Stein-Leventhal syndrome

Answer: B

A disadvantage of home delivery is the lack of facilities to control postpartum hemorrhage. The woman described in the question delivered a large baby, suffered multiple soft tissue injuries, and went into shock, needing 9 units of blood by the time she reached the hospital. Sheehan syndrome seems a likely possibility in this woman. This syndrome of anterior pituitary necrosis related to obstetric hemorrhage can be diagnosed by 1 week postpartum, as lactation fails to commence normally. Although many modern women choose hormonal therapy to prevent lactation, the woman described in the question was intent on breast-feeding and so would not have received suppressant. She therefore could have been expected to begin lactation at the usual time. Other symptoms of Sheehan syndrome include amenorrhea, atrophy of the breasts, and loss of thyroid and adrenal function. The other presented choices for late sequelae are rather farfetched. Hemochromatosis would not be expected to occur in this healthy young woman, especially since she did not receive prolonged transfusions. Cushing, Simmonds, and Stein-Leventhal syndromes are not known to be related to postpartum hemorrhage. It is important to note that home delivery is not a predisposing factor to postpartum hemorrhage.

851. A 29-year-old Caucasian primigravida is 20 weeks pregnant with twins. She found out today on her routine ultrasound for fetal anatomy that she is carrying two boys. In this patient's case, which of the following statements about her twins is true?

- A. If division of these twins occurred after formation of the embryonic disk, the twins will be conjoined.
- B. If the ultrasound showed two separate placentas, the twins must be dizygotic.
- C. She has a higher incidence of having monozygotic twins since she is Caucasian.
- D. The twins must be monozygotic since both males.

Answer: A

The incidence of monozygotic twinning is constant at a rate of one set per 250 births around the world. It is unaffected by race, heredity, age, parity, or infertility agents. Examination of the amnion and chorion can be used to determine monozygosity only if one chorion is identified. Two identifiable chorions can occur in monozygotic or dizygotic twinning. The time of the division of a fertilized zygote to form monozygotic twins determines the placental and membranous anatomy. Late division after formation of the embryonic disk will result in conjoined twins.

852. Which of the following is the most common cause of bloody discharge from nipple?

- A. Fibroadenomas
- B. Fibrocystic breast disease
- C. Intraductal papilloma
- D. Lobular carcinoma in situ

Answer: C

Intraductal papilloma

Definition

Wart-like benign Breast tissue growth within the Lactation ducts

Epidemiology.

Peak Incidence: age 35-55 years old (mean age 48 years old)

Pathophysiology.

1. Mechanism of growth appears to be proliferative fibrocystic epithelial hyperplasia
2. Broad-based or pedunculated polypoid epithelial growth of size 2-3 mm and within Lactation duct
3. Localized within 1 cm of nipple in 90% of cases

Symptoms

1. Intermittent bloody discharge from one nipple is the classic presentation of intraductal papilloma. It is a benign tumor of major lactiferous ducts, that is most common in perimenopausal women.
- 2. Most common cause of spontaneous, unilateral, bloody nipple discharge**

Diagnosis:

Breast biopsy: Distinguishes Intraductal Papilloma from Breast Cancer as a cause of bloody Breast discharge

853. A 32-year-old pregnant woman comes to see you in the office at 32 weeks of gestational age for her routine OB visit. On doing Leopold maneuvers during this office visit, you determine that the fetus is a breech presentation. Which of the following is the best recommendation for her?

- A. Cesarean section at term
- B. External cephalic version at 36 weeks
- C. External cephalic version now
- D. Vaginal delivery at term

Answer: B

The external cephalic version is a process by which a breech baby can sometimes be turned from buttocks or foot first to head first. The external cephalic version is a manual procedure that is advocated by national guidelines for breech presentation singleton pregnancy, in order to enable vaginal delivery. It is usually performed after about 36 weeks.

854. A 32-year-old woman comes for a medical consultation with complaints of being unable to get pregnant for 5-6 years. 5 years ago the first pregnancy ended in artificial abortion. After the vaginal and ultrasound examination there was diagnosed endometrioma of the right ovary. Which of the following is the best treatment option for this woman?

- A. NSAIDs
- B. Oral contraceptive pills
- C. Sanatorium-and-spa treatment
- D. Surgical laparoscopy

Answer: D

Endometrioma is the presences of endometrial tissue in and sometimes on the ovary. More broadly, endometriosis is the presence of endometrial tissue located outside the uterus. The presence of endometriosis can result in the formation of scar tissue, adhesions and an inflammatory reaction. It is a benign growth. An endometrioma is most often found in the ovary. It can also develop in the cul-de-sac (space behind the uterus), the surface of the uterus, and between the vagina and rectum. Laparoscopic surgical approaches include excision of ovarian adhesions and of endometriomas. Endometriomas frequently require surgical removal and excision is considered to be superior in terms of permanent removal of the disease and pain relief. Surgery can sometimes have the effect of improving fertility but can have the adverse effect of leading to increases in cycle day 2 or 3 FSH for many patients.

855. You are counseling a new mother and father on the risks and benefits of circumcision for their 1-day-old son. The parents ask if you will use analgesia during the circumcision. What do you tell them regarding the recommendations for administering pain medicine for circumcisions?

- A. Analgesia in the form of a penile block is recommended.
- B. Analgesia in the form of oral Tylenol is the pain medicine of choice recommended for circumcisions.
- C. Analgesia is not recommended because it is unsafe in newborns.
- D. Analgesia is not recommended because there is no evidence that newborns undergoing circumcision experience pain.

Answer: A

Analgesia should always be provided to a newborn undergoing a circumcision procedure, because much evidence suggests that infants who undergo this procedure without pain medicine experience pain and stress. The administration of oral Tylenol or sucrose is not adequate for operative pain relief. Topical lidocaine cream, dorsal penile nerve block, and subcutaneous ring block are all effective and safe modalities to achieve analgesia in newborns undergoing a circumcision procedure.

856. A 42-year-old woman has had polymenorrhea and progressing dysmenorrhea for the last 10 years. Gynaecological examination revealed no changes of the uterine cervix. Her vaginal discharge has a chocolate color. A uterus is slightly enlarged and painful, ovaries are not palpable. Which of the following is the most likely diagnosis in this woman?

- A. Adenomyosis
- B. Adnexal endometriosis
- C. Subserous uterine fibromyoma
- D. Uterine carcinoma

Answer: A

Adenomyosis is a gynecologic medical condition characterized by the abnormal presence of endometrial tissue (the inner lining of the uterus) within the myometrium (the thick, muscular layer of the uterus). In contrast, when endometrial tissue is present entirely outside the uterus, it represents a similar but distinct medical condition called endometriosis. The two conditions are found together in many cases, but often occur independently. Before being recognized as its own condition, adenomyosis used to be called endometriosis interna. Additionally, the less-commonly used term "adenomyometritis" is a more specific name for the condition, specifying involvement of the uterus. The condition is typically found in women between the ages of 35 and 50 but can also be present in younger women. Patients with adenomyosis often present with painful and/or profuse menses (dysmenorrhea & menorrhagia, respectively). Other possible symptoms are pain during sexual intercourse, chronic pelvic pain and irritation of the urinary bladder.

857. A 26-year-old woman had the second labor within the last 2 years after oxytocin infusion. The child weight is 4080 g. After the birth of the placenta, there was massive bleeding and signs of hemorrhagic shock. Despite the injection of contractive drugs, there were no good contractions of the uterus and the bleeding has not stopped. Which of the following is the most likely diagnosis in this woman?

- A. Hypotonia of the uterus
- B. Hysterorrhexis
- C. Injury of cervix of the uterus
- D. Uterine Atony

Answer: D

Uterine atony is a loss of tone in the uterine musculature. Normally, contraction of the uterine muscles during labor compresses the blood vessels and reduces flow, thereby increasing the likelihood of coagulation and preventing hemorrhage. A lack of uterine muscle contraction, however, can lead to an acute hemorrhage, as the uterine blood vessels are not sufficiently compressed. Clinically, 75-80% of postpartum hemorrhages are due to uterine atony.

858. A 70-year-old woman has complaints of leakage of urine while coughing or sneezing. Which of the following is the most likely diagnosis?

- A. Neurogenic bladder
- B. Stress incontinence
- C. Urge incontinence
- D. Urinary tract infection

Answer: B

1. Urinary stress incontinence is the leakage of urine during any maneuver that increases abdominal pressure due to decreased anatomic support of and function of the urinary sphincter 2. Risk factors include female, multiparity, obesity 3. Clinical features: incontinence accompanies coughing, sneezing, laughing, exercise, lifting heavy objects; diagnosis usually made by history and bladder diary; urodynamic testing by a urologist may be helpful but is usually not necessary 4. Treatment: conservative therapy (weight loss, Kegel exercises), surgical therapy (midurethral sling, pessaries) Urge incontinence occurs due to a sudden, intense urge to urinate followed by an involuntary loss of urine. The patient needs to urinate often, including throughout the night. Urge incontinence may be caused by a minor condition, such as infection, or a more-severe condition such as a neurologic disorder or diabetes.

859. A pregnant lady at 12 weeks of pregnancy have small fibroids. Which of the following should she expect?

- A. Asymptomatic
- B. Degeneration of fibroid
- C. Fibroid torsion
- D. Malignisation of fibroid

Answer: A

Most fibroids are asymptomatic. However, severe localized abdominal pain can occur if a fibroid undergoes so-called “red degeneration,” torsion (seen most commonly with a pedunculated subserosal fibroid). Pain is the most common complication of fibroids in pregnancy, and is seen most often in women with large fibroids (> 5 cm) during the second and third trimesters of pregnancy.

References: Toronto notes 2017, GY15

<http://www.webmd.com/women/uterine-fibroids/what-if-i-have-uterine-fibroids-while-pregnant#1>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2876319/>

860. A 35-year-old newly married woman visits her family doctor asking about the best time for fertilization. Her menstrual cycles are regular and last for about 34 days. Physical examination is unremarkable. Which of the following days of the cycle is the expected date for ovulation in this woman?

- A. 10th day
- B. 14th day
- C. 20th day
- D. 28th day
- E. 30th day

Answer: C

To calculate the ovulation date should be beared in mind that no matter how long your entire cycle is, the luteal phase always lasts for 14 to 15 days. To find out the ovulation date should be removed these 14 days from the whole average cycle. For example, if a cycle is usually 34 days long, ovulation will take place on the twenties day ($34 - 14 = 20$).

861. A 39-year-old woman, gravida 3, para 3, complains of severe, progressive secondary dysmenorrhea and menorrhagia. Pelvic examination demonstrates a tender, diffusely enlarged uterus with no adnexal tenderness. Results of endometrial biopsy are normal. Which of the following is most likely diagnosis in this patient?

- A. Adenomyosis

- B. Endometriosis
- C. Endometritis
- D. Leiomyoma
- E. Uterine sarcoma

Answer: A

Adenomyosis is a gynecologic medical condition characterized by the abnormal presence of endometrial tissue (the inner lining of the uterus) within the myometrium (the thick, muscular layer of the uterus). In contrast, when endometrial tissue is present entirely outside the uterus, it represents a similar but distinct medical condition called endometriosis. The two conditions are found together in many cases, but often occur independently. Symptoms and the estimated percent affected may include: Chronic pelvic pain (77%) Heavy menstrual bleeding (40-60%), which is more common with in women with deeper adenomyosis. Blood loss may be significant enough to cause anemia, with associated symptoms of fatigue, dizziness, and moodiness. Abnormal uterine bleeding Painful cramping menstruation (15-30%) Painful vaginal intercourse (7%) A 'bearing' down feeling Pressure on bladder Dragging sensation down thighs and legs Clinical signs of adenomyosis may include: Uterine enlargement (30%), which in turn can lead to symptoms of pelvic fullness. Tender uterus Infertility or sub-fertility (11-12%) - In addition, adenomyosis is associated with an increased incidence of preterm labour and premature rupture of membranes.

862. Which of the following is the first symptom of pre-eclampsia?

- A. Abdominal pain
- B. Blurred vision
- C. High blood pressure and proteinuria
- D. Seizure

Answer: C

Pre-eclampsia (PE) is a disorder of pregnancy characterized by the onset of high blood pressure and often a significant amount of protein in the urine. The condition begins after 20 weeks of pregnancy. In severe disease there may be red blood cell breakdown, a low blood platelet count, impaired liver function, kidney dysfunction, swelling, shortness of breath due to fluid in the lungs, or visual disturbances. Pre-eclampsia increases the risk of poor outcomes for both the mother and the baby. While historically both high blood pressure and protein in the urine were required to make the diagnosis, some definitions also include those with hypertension and any associated organ dysfunction. Blood pressure is defined as high when it is greater than 140 mmHg systolic or 90 mmHg diastolic at two separate times, more than four hours apart in a woman after twenty weeks of pregnancy.

863. Which of the following is a correct treatment for a pregnant woman with hyperthyroidism?

- A. Levothyroxine
- B. Methimazole
- C. Propylthiouracil
- D. Radioactive iodine

Answer: C

1. Hyperthyroidism is characterized by hypermetabolism and elevated serum levels of free thyroid hormones.
2. Many common symptoms of hyperthyroidism are similar to those of adrenergic excess, such as nervousness, palpitations, hyperactivity, increased sweating, heat hypersensitivity, fatigue, increased appetite, weight loss, insomnia, weakness, and frequent bowel movements (occasionally diarrhea). Hypomenorrhea may be present.
3. Signs may include warm, moist skin; tremor; tachycardia; widened pulse pressure and atrial fibrillation.
4. Diagnosis is clinical and with thyroid function tests. Treatment depends on cause.
5. Hyperthyroidism is often treated with antithyroid drugs in pregnancy.
6. Propylthiouracil is recommended to be used during the first trimester and switch to methimazole is recommended thereafter to reduce risk of hepatotoxicity.
7. This patient is symptomatic and should be treated with PTU or methimazole.
8. A low-dose beta-blocker could also be used to control symptoms until the PTU is effective.
9. Radioactive iodine is not safe in pregnancy and is contraindicated.
10. Iodine may cause goiter in the neonate.

864. A 67-year-old woman comes with complaints of post-menopausal bleeding. She had not been on any hormone replacement therapy. Which of the following is the most common benign cause of bleeding in this age?

- A. Atrophic vaginitis
- B. Cervical erosion
- C. Cervical polyps
- D. Endometrial Hyperplasia

Answer: A

Atrophic vaginitis is an inflammation of the vagina due to the thinning and shrinking of the tissues, as well as decreased lubrication. The most common cause of vaginal atrophy is the decrease in estrogen which happens naturally during perimenopause, and increasingly so in postmenopause. Atrophic vaginitis is one of the most common benign postmenopausal bleeding (PMB). Other genital symptoms include dryness, itching, burning, soreness, pressure, white discharge, malodorous discharge due to infection, painful sexual intercourse, bleeding after intercourse. In addition, sores and cracks may occur spontaneously.

865. A 21-year-old woman comes for a regular Pap smear screening. Which of the following is the best place to take Pap smear?

- A. Columnar layer of the cervix
- B. Cuboidal layer of the cervix
- C. Squamous layer of the cervix
- D. The squamocolumnar junction of the cervix

Answer: D

A Pap smear involves the painless removal of cells from the cervix. It is a screening test for cervical cancer. A Pap smear is performed by opening the vaginal canal with a speculum, then collecting cells at the outer opening of the cervix at the transformation zone (where the outer squamous cervical cells meet the inner glandular endocervical cells - the squamocolumnar junction of the cervix, between the ecto and endocervix).

866. A 21-year-old woman returns to your office for evaluation of an abnormal Pap smear. The Pap smear showed a squamous abnormality suggestive of a high-grade squamous intraepithelial lesion (HGSIL). Colposcopy confirms the presence of a cervical lesion consistent with severe cervical dysplasia (CIN III). Which of the following human papilloma virus (HPV) types is most often associated with this type of lesion?

- A. HPV type 11
- B. HPV type 16
- C. HPV type 42
- D. HPV type 6

Answer: B

The human papillomaviruses (HPV) are a group of double-stranded DNA viruses that infect epithelial cells. They do not cause systemic infection. There are numerous viruses within the group, and they are named by number according to the order of their discovery. Human papilloma viruses can be sexually transmitted. HPV, in particular types 16, 18, and 31, have been linked to cervical neoplasia. HPV types 6 and 11 are associated with benign condyloma.

867. A new patient presents to your office for her first prenatal visit. By her last menstrual period she is 11 weeks pregnant. This is the first pregnancy for this 36-year-old woman. She has no medical problems. At this visit you observe that her uterus is palpable midway between the pubic symphysis and the umbilicus. No fetal heart tones are audible with the Doppler stethoscope. Which of the following is the best next step in the management of this patient?

- A. Reassure her that fetal heart tones are not yet audible with the Doppler stethoscope at this gestational age.
- B. Schedule an ultrasound as soon as possible to determine the gestational age and viability of the fetus.
- C. Schedule genetic amniocentesis right away because of her advanced maternal age.
- D. Tell her the uterine size is appropriate for her gestational age and schedule her for routine ultrasonography at 20 weeks.

Answer: B

At 11 weeks of gestation, the uterus is still within the pelvis and should not be palpable above the symphysis pubis. A uterus that is palpable midway between the symphysis pubis and the umbilicus is 14 to 16 weeks in size. The fetal heart tones are audible in most patients at 10 weeks. If no fetal heart tones are audible by Doppler auscultation and the patient is 10 weeks or more, an ultrasound of the pregnancy should be ordered. Molar pregnancy, twin gestation, incorrect dates, and uterine fibroids are all possible diagnoses when the uterus is large for dates; therefore, ultrasonography is the first step in the evaluation of size/date discrepancy. Although molar pregnancy is an indication for dilation and curetiage, the procedure is not indicated before evaluation of the patient with ultrasonography. This patient is of advanced maternal age (>35 years of age at the time of delivery), however, genetic amniocentesis should not be performed without first knowing the gestational age and viability of the pregnancy.

868. Which of the following is the most frequently reported symptom of vulvar cancer?

- A. Bleeding
- B. Dysuria
- C. Longstanding pruritus
- D. Pain

Answer: C

1. **Vulvar cancer** is usually a squamous cell skin cancer, most often occurring in elderly women.
2. It usually manifests as a palpable lesion.
3. Most patients with vulvar cancer present with a palpable vulvar lesion, frequently noticed by the woman or by a clinician during pelvic examination. Women often have a long history of pruritus.
4. Average age at diagnosis is about 70, and incidence increases with age.
5. Diagnosis is by biopsy.
6. Treatment typically includes excision and lymph node dissection or sentinel lymph node mapping.

869. A 22-year-old female presents to the physician with amenorrhea, headache, and galactorrhea. Her pregnancy test is negative, serum prolactin is 200 mg/dL. MRI showed a pituitary mass of 15 mm. Which of the following is the most likely diagnosis?

- A. Astrocytomas
- B. Craniopharyngioma
- C. Kallmann syndrome
- D. Prolactinoma

Answer: D

Prolactinoma

1. Prolactinoma secreting tumor is the most common cause in adolescents
2. **Prolactinomas are the most common hormone-secreting pituitary tumors.**
3. Based on its size, a prolactinoma can be classified as a microprolactinoma (< 10 mm diameter) or a macroprolactinoma (>10 mm diameter).
4. Patients with microprolactinoma generally have an excellent prognosis.
5. Macroprolactinomas have a tendency to grow with time and require aggressive treatment to prevent complications.
6. **Clinical presentation:** Headache, amenorrhea, galactorrhea and visual disturbance if tumor affect the optic chiasm, e.g. bitemporal hemianopsia or total vision loss in severe cases.

Diagnosis

1. Elevated serum PRL (prolactin)
2. TSH and pregnancy test must be performed
3. MRI: A serum PRL value of 200 ng/mL or greater in the presence of a macroadenoma (> 10 mm) is virtually diagnostic of prolactinoma.

Treatment

1. Bromocriptine
2. Cabergoline. Better tolerated than bromocriptine.

870. Which of the following is associated with polycystic ovary syndrome?

- A. Breast
- B. Endometrial cancer
- C. Lung

- D. Ovarian
- E. Vaginal cancer

Answer: B

A diagnosis of PCOS suggests an increased risk of Endometrial hyperplasia and endometrial cancer, due to overaccumulation of the uterine lining, and also lack of progesterone resulting in prolonged stimulation of uterine cells by estrogen. It is not clear whether this risk is directly due to the syndrome or from the associated obesity, hyperinsulinemia, and hyperandrogenism.

871. A 35-year-old woman comes requesting long-term reversible contraception. Which of the following is the method that can provide the longest contraception?

- A. Contraceptive implant
- B. Copper intrauterine device
- C. Depo-Provera injection
- D. Intrauterine hormonal system (IUS)
- E. Laparoscopic sterilization

Answer: B

The best long-term reversible contraception is Copper intrauterine device. Intrauterine device (IUD) with copper also known as intrauterine coil, is a type of intrauterine device which contains copper. It is used for birth control and emergency contraception within five days of unprotected sex. It is one of the most effective forms of birth control with a one-year failure rate around 0.7%. The device is placed in the uterus and lasts three to ten years. It may be used by women of all ages regardless of whether or not they have had children. Following removal, fertility quickly returns. Laparoscopic sterilization is irreversible sterilization.

872. Which of the following is a leiomyoma?

- A. is a benign skeletal muscle tumor
- B. is a benign smooth muscle tumor
- C. is a malignant smooth muscle tumor
- D. is abnormal presence of endometrial tissue within the myometrium

Answer: B

Leiomyoma: A benign tumor of smooth muscle, the type of muscle that is found in the heart and uterus. A leiomyoma of the uterus is commonly called a fibroid. The most common benign neoplasm of the female genital tract. The tumor is discrete, round, firm, and often multiple and is composed of smooth muscle and connective tissue. Tumors are estrogen and progesterone sensitive, so they often ↑ in size during pregnancy and ↓ after menopause. Reference: First Aid USMLE Step 2 CK 2014, page 379

873. A 35-year-old female comes with complaints of amenorrhea for 6 months, thinning and dryness of vaginal mucosa. She underwent D&C 3 years ago due to retained placental tissue following one of her deliveries. On examination: normal cervical canal, normal uterus with nonpalpable ovaries. Her hormonal profile is FSH: high, LH: high, TSH: normal, Estradiol: low. Which of the following is the most likely diagnosis in this woman?

- A. Asherman's syndrome
- B. Kallmann syndrome
- C. Premature ovarian failure
- D. Turner syndrome

Answer: C

Although she has a history of D&C which might let us think of Asherman's, these patients tend to have normal ovulatory cycles with cyclical premenstrual symptoms. All the other symptoms are symptoms relating to amenorrhea with hypo-estrogenism which is typical for premature ovarian failure. Reference: Hacker and Moore's, page 359, 5th edition

874. A 33-year-old G3P2 at 38 weeks gestation develops flu-like illness and breaks out with a pruritic, vesicular lesions all over her body. Three days later she goes into spontaneous labor and delivers a healthy appearing male infant via vaginal delivery. Her lesions are beginning to heal and she feels well. What is the most appropriate next step in the management of this patient and her baby?

- A. Administer Varivax (varicella vaccine) to the baby.
- B. Administer intravenous acyclovir to the baby.
- C. Administer intravenous acyclovir to the mother.

D. Administer varicella-zoster immune globulin to the baby.

Answer: D

Perinatal exposure to varicella prior to the development of maternal antibodies is a great threat to newborns. Neonatal mortality rates are close to 25%. Therefore if a mother has clinical evidence of varicella infection 5 days before or up to 2 days after delivery, the newborn should receive varicella-zoster immune globulin. Typically varicella infection in the mother only requires supportive therapy, but pregnant women have a higher and mortality related to development of pneumonia. If pneumonia is diagnosed, intravenous acyclovir should be given. The newborn should be isolated from the mother if she is infective, and if the neonate develops signs or symptoms of varicella infection then intravenous acyclovir would be administered. Varivax, the live-attenuated varicella vaccine recommended for healthy children after 12 months of age and it is contraindicated in pregnant women. Zostavax the vaccine for the prevention of herpes zoster is not recommended for individuals under the age of 60.

875. A woman has a high risk for preterm delivery. Which of the following is the screening method for bacterial vaginosis in asymptomatic pregnant women at high risk for preterm delivery?

- A. After 20 weeks of pregnancy metronidazole cream for 5-7 days
- B. After 30 weeks of pregnancy metronidazole cream for 7 days
- C. Microscopy with Whiff test
- D. There is no need to do screening for bacterial vaginosis

Answer: D

The USPSTF recommends against screening for bacterial vaginosis in asymptomatic pregnant women at low risk for preterm delivery. The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for bacterial vaginosis in asymptomatic pregnant women at high risk for preterm delivery.

876. Which of the following is the reversible form of cardiomyopathy?

- A. Hypertrophic cardiomyopathy
- B. Non-compaction cardiomyopathy
- C. Peripartum cardiomyopathy
- D. Restrictive cardiomyopathy

Answer: C

Peripartum cardiomyopathy (PPCM) is a form of dilated cardiomyopathy that is defined as a deterioration in cardiac function presenting typically between the last month of pregnancy and up to six months postpartum. As with other forms of dilated cardiomyopathy, PPCM involves systolic dysfunction of the heart with a decrease of the left ventricular ejection fraction (EF) with associated congestive heart failure and an increased risk of atrial and ventricular arrhythmias, thromboembolism (blockage of a blood vessel by a blood clot), and even sudden cardiac death. The most recent studies indicate that with newer conventional heart failure treatment consisting of diuretics, ACE inhibitors and beta blockers, the survival rate is very high at 98% or better, and almost all PPCM patients improve with treatment. In the United States, over 50% of PPCM patients experience complete recovery of heart function (EF 55% or greater).

877. A pregnant in labor and her cervix is open 6 cm. Which of the following is a correct stage of labor?

- A. 2nd stage
- B. 3rd stage
- C. Active phase of 1st stage
- D. Latent phase of 1st stage

Answer: C

First stage of labor

The first stage begins with regular uterine contractions and ends with complete cervical dilatation at 10 cm. In Friedman's landmark studies of 500 nulliparous, he subdivided the first stage into an early latent phase and an ensuing active phase. The latent phase begins with mild, irregular uterine contractions that soften and shorten the cervix. The contractions become progressively more rhythmic and stronger. This is followed by the active phase of labor, which usually begins at about 3-4 cm of cervical dilation and is characterized by rapid cervical dilation and descent of the presenting fetal part. The first stage of labor ends with complete cervical dilation at 10 cm. According to Friedman, the active phase is further divided into an acceleration phase, a phase of maximum slope, and a deceleration phase.



First Stage: latent>> 3-4cm dilation Active>> from 4cm to 10cm

Reference: <http://emedicine.medscape.com/article/260036-overview?pa=BStUQeGZ8oH1D00q1TcKH0%2FwJQF%2FNwqUMttN8bKSVZCmLytzFC9uqkpy43mU9jD%2B1DtnxY470myybA%3D%3D#a3>

878. A old woman presents to her gynecologist reporting difficulty with intercourse. She states having vaginal dryness and pruritus. Her last menstrual period was 10 years ago. Pelvic exam is notable for thin and dry vaginal vestibule. There is no abnormal discharge. Which of the following is the best treatment for this woman?

- A. Local estrogen cream
- B. Metronidazole cream
- C. NSAIDs
- D. Surgical treatment

Answer: A

local estrogen replacement (ideal): Premarin® cream, VagiFem® tablets, or Estrin  oral or transdermal hormone replacement therapy (if treatment for systemic symptoms is desired)  good hygiene

Reference: Toronto Notes , <http://patient.info/health/menopause-and-hormone-re- placement-therapy-hrt>

879. A 24-year-old patient recently emigrated from the tropics. Four weeks ago she noted a small vulvar ulceration that spontaneously healed. Now there is painful inguinal adenopathy associated with malaise and fever. You are considering the diagnosis of lymphogranuloma venereum (LGV). The diagnosis can be established by which of the following?

- A. Culturing *Haemophilus ducreyi*
- B. Positive Frei skin test
- C. Staining for Donovan bodies
- D. The presence of serum antibodies to *Chlamydia trachomatis*

Answer: D

Lymphogranuloma venereum (LGV) is a chronic infection produced by *C trachomatis*. It is most commonly found in the tropics. The primary infection begins as a painless ulcer on the labia or vaginal vestibule; the patient usually consults the physician several weeks after the development of painful adenopathy in the inguinal and perirectal areas. Diagnosis can be established by culture or by demonstrating the presence of serum antibodies to *C trachomatis*. The Frei skin test is no longer used because of its low sensitivity. The differential diagnosis includes syphilis, chancroid, granuloma inguinale, carcinoma, and herpes. Chancroid is a sexually transmitted disease caused by *H ducreyi* that produces a painful, tender ulceration of the vulva. Donovan bodies are present in patients with granuloma inguinale, which is caused by *C granulomatis*. Therapy for both granuloma inguinale and LGV is administration of doxycycline. Chancroid is successfully treated with either azithromycin or ceftriaxone.

880. A 46-year-old female comes to the clinic with a 5-day history of low-grade fever and abdominal pain. Last menstrual period was two weeks ago. She is sexually active with multiple partners and uses condoms infrequently. Temperature is 37.6°C. During the pelvic examination, there is a mucopurulent exudate and bilateral cervical motion tenderness. Her leukocyte count is 21,000/mm³. A Gram stain of the exudate revealed intracellular diplococci within the polymorphonuclear neutrophils. Which of the following is most likely diagnosis in this woman?

- A. Bacterial vaginitis
- B. Chlamydia
- C. Gonorrhea
- D. Trichomonosis

Answer: C

Gonorrhea, also spelled gonorrhoea, is a sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae* - intracellular diplococci within the polymorphonuclear neutrophils. Many people have no symptoms. Men may have burning with urination, discharge from the penis, or testicular pain. Women may have burning with urination, vaginal discharge, vaginal bleeding between periods, or pelvic pain. Complications in women include pelvic inflammatory disease and in men include inflammation of the epididymis. If untreated, gonorrhea can spread to joints or heart valves.

881. A woman has adenomyosis. Which of the following is the first-line treatment for this woman?

- A. Endometrial ablation
- B. Hysterectomy
- C. Morphine
- D. NSAID plus OCP

Answer: D

The first-line treatment for adenomyosis is symptomatic and it is NSAID with Oral contraceptive pills or progestins.

Conservative surgical treatment: Endometrial ablation or resection using hysteroscopy is the second step of treatment. Complete eradication of deep adenomyosis is difficult and results in high treatment failure. That is why hysterectomy is the only definitive treatment.

Reference: First Aid USMLE Step 2 CK 2014, page 370 (TABLE 2.12-4.)

882. The patient complains of severe lower abdominal pain. She has missed her menses 5 weeks ago. Ultrasound shows that Douglas pouch is full of fluid. A culdocentesis shows dark blood. Which of the following is the most likely diagnosis?

- A. Normal pregnancy
- B. Ovarian torsion
- C. Ruptured ectopic pregnancy

D. Ruptured ovarian cyst

Answer: C

The classic triad of ectopic pregnancy: prior missed menses, vaginal bleeding, abdominal pain. Acutely ruptured ectopic pregnancy causes intraperitoneal hemorrhage and severe abdominal pain.

Reference: Hacker and Moore's, page 291, 5th edition

883. A woman at 36 weeks pregnant started having contractions lasting 30 secs. Her cervical is dilated for 4 cm. Cardiotocography was done and shown fetal heart rate is 150 beats/min. The estimated weight of fetus is 2650g. Which of the following is the best next step for this woman?

- A. Emergency cesarean section
- B. Give tocolytics
- C. IV betamethasone
- D. Vaginal delivery

Answer: D

This woman is in the active second phase of labor with fetus more than 2500g. The best next step for this woman is vaginal delivery. Do not stop preterm labor if preeclampsia/eclampsia, maternal cardiac disease, cervical dilation > 4cm, hemorrhage (abruptio placenta, DIC), fetal death, chorioamnionitis.

884. A 51-year-old female presents with a feeling of heat beginning in the face, neck, and chest followed by profuse sweating in the upper body that lasts five minutes. These episodes are happening repetitively throughout the day and disturb her sleep at night. Her last menstrual period was over four months ago. Which of the following would be the best next step to confirm the diagnosis?

- A. FSH and LH
- B. TSH and T4
- C. Urinary 5-HIAA
- D. Urine metanephrine

Answer: A

This woman most likely has menopause. The best next step to confirm the diagnosis is to check her FSH and LH level. Urine metanephrine is used for pheochromocytoma, urinary 5-HIAA is used for carcinoid syndrome, TSH and T4 - for hypo or hyperthyroidism.

885. A 15-year-old woman presents to your office for her routine physical examination while she is on summer break from school. She denies any medical problems or prior surgeries. She had chicken pox at age 4. Her menses started at the age of 12 and are regular. She has recently become sexually active with her 16-year-old boyfriend. She states that they use condoms for contraception. Her physical examination is normal. Which of the following vaccines is appropriate to administer to this patient?

- A. Hepatitis A vaccine
- B. Human papilloma virus vaccine
- C. Meningococcal vaccine
- D. Pneumococcal vaccine

Answer: B

It would be appropriate for this patient to receive a human papilloma vaccination, since it is recommended for all previously unvaccinated women aged 9 to 26 years. She is not a candidate for the varicella vaccine since she has had chicken pox. The hepatitis A vaccine is indicated for international travelers, illegal drug users, and health care workers. The pneumococcal vaccine is indicated in immunocompromised persons, those with chronic illnesses, and individuals more than 65 years old. Meningococcal vaccination is recommended for college freshmen living in dorms, asplenia, or travel or residence in countries where meningococcal disease is endemic.

886. What is the treatment of choice for Trichomoniasis?

- A. Azithromycin
- B. Fluconazole
- C. Metronidazole
- D. Nystatin

Answer: C

Treatment for both pregnant and non-pregnant women is usually with metronidazole, by mouth once. Caution should be used in pregnancy, especially in the first trimester. Sexual partners, even if they have no symptoms, should also be treated.

887. A woman at 15 weeks is complaining of palpitations, anxiety, and heat intolerance. An ECG shows sinus tachycardia with a rate of 110 beats/minute. Which of the following is the treatment of choice during her pregnancy?

- A. Levothyroxine
- B. Partial thyroidectomy
- C. Propylthiouracil
- D. Radioactive iodine

Answer: C

1. Hyperthyroidism is characterized by hypermetabolism and elevated serum levels of free thyroid hormones.
2. Many common symptoms of hyperthyroidism are similar to those of adrenergic excess, such as nervousness, palpitations, hyperactivity, increased sweating, heat hypersensitivity, fatigue, increased appetite, weight loss, insomnia, weakness, and frequent bowel movements (occasionally diarrhea). Hypomenorrhea may be present.
3. Signs may include warm, moist skin; tremor; tachycardia; widened pulse pressure and atrial fibrillation.
4. Diagnosis is clinical and with thyroid function tests. Treatment depends on cause.
5. Hyperthyroidism is often treated with antithyroid drugs in pregnancy.
6. Propylthiouracil is recommended to be used during the first trimester and switch to methimazole is recommended thereafter to reduce risk of hepatotoxicity.
7. This patient is symptomatic and should be treated with PTU or methimazole.
8. A low-dose beta-blocker could also be used to control symptoms until the PTU is effective.
9. Radioactive iodine is not safe in pregnancy and is contraindicated.
10. Iodine may cause goiter in the neonate.

888. A 70-year-old woman presents for evaluation of a pruritic lesion on the vulva. Examination shows a white, friable lesion on the right labia majorum that is 3 cm in diameter. No other suspicious areas are noted. Biopsy of the lesion confirms squamous cell carcinoma. In this patient, lymphatic spread of the cancer would be first to which of the following lymph nodes?

- A. Deep femoral lymph nodes
- B. External iliac lymph nodes
- C. Periaortic nodes
- D. Superficial inguinal lymph nodes

Answer: D

An important feature of the lymphatic drainage of the vulva is the existence of drainage across the midline. The vulva drains first into the superficial inguinal lymph nodes, then into the deep femoral nodes, and finally into the external iliac lymph nodes. The clinical significance of this sequence for patients with carcinoma of the vulva is that the iliac nodes are probably free of the disease if the deep femoral nodes are not involved. Unlike the lymphatic drainage from the rest of the vulva, the drainage from the clitoral region bypasses the superficial inguinal nodes and passes directly to the deep femoral nodes. Thus, while the superficial nodes usually also have metastases when the deep femoral nodes are implicated, it is possible for only the deep nodes to be involved if the carcinoma is in the midline near the clitoris.

889. A patient who works as a nurse in the surgery intensive care unit at a local community hospital comes to see you for her annual gynecologic examination. She tells you that she plans to go off her oral contraceptives because she wants to become pregnant in the next few months. This patient has many questions regarding updating the immunizations required by her hospital and whether or not she can do this while pregnant. Which of the following is the most appropriate recommendation?

- A. If she is exposed to chicken pox while she is pregnant she can be immunized at that time since the c
- B. She should be checked for immunity against the rubella virus prior to conception and vaccinated at least 28 days prior to conception because the rubella vaccine contains a live virus and should not be given during pregnancy.
- C. The Centers for Disease Control and Prevention recommends that all pregnant women should be vaccinat
- D. The patient should be given the tetanus toxoid vaccination prior to becoming pregnant because it is a live virus vaccine that has been

associated with multiple fetal anomalies when administered during pregnancy.

Answer: B

Immunizations in pregnancy with toxoids (tetanus) or killed bacteria or viruses (influenza, hepatitis B) have not been associated with fetal anomalies or adverse outcomes. The varicella, rubella, measles, mumps, and polio vaccines consist of attenuated live viruses and should not be administered during pregnancy because of a theoretic risk to the fetus. The Centers for Disease Control recommends that pregnant women not receive immunization with a live attenuated virus and that all pregnant women receive the inactivated influenza vaccine during pregnancy.

890. A 21-year old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the appropriate management of this patient?

- A. Analgesics, frequent breastfeeding and antibiotics
- B. Incision and drainage
- C. Needle biopsy
- D. Stop breastfeeding

Answer: A

Mastitis

1. Lactational mastitis: Common in the first few months of lactation.
2. It is mostly caused by *Staphylococcus aureus*, affects one quadrant and is treated with penicillinase resistant penicillin.
3. Mastitis is not a contraindication to breastfeeding.
4. Symptoms often begin 2–4 weeks postpartum; are usually unilateral; and include focal breast tenderness, erythema, edema, warmth, and possible purulent nipple drainage.
5. Treatment: Continued breast-feeding and PO antibiotics (e.g., penicillin, dicloxacillin, erythromycin).
6. Incision and drainage of breast abscess if present.

891. In a woman during treatment of pelvic inflammatory disease, in the background of ceftriaxone injection, there was difficulty breathing, swelling of the face and neck, and chubby voice. Her blood pressure is 90/60 mmHg

and pulse is 102 b/min. Which of the following is the best next step?

- A. IM epinephrine
- B. IV dexamethasone
- C. Phenyltoloxamine
- D. Ramotidine
- E. Triprolidine

Answer: A

Anaphylaxis is a medical emergency that may require resuscitation measures such as airway management, supplemental oxygen, large volumes of intravenous fluids, and close monitoring. Administration of epinephrine is the treatment of choice with antihistamines and steroids (for example, dexamethasone) often used as adjuncts. A period of in-hospital observation for between 2 and 24 hours is recommended for people once they have returned to normal due to concerns of biphasic anaphylaxis.

892. A patient with ectopic pregnancy of 3.5*4.0 size. Her urinary b-hCG is 7000. The patient is stable. Which of the following is the best treatment option for this woman?

- A. D&C
- B. Laparoscopy
- C. Laparotomy
- D. Medical therapy

Answer: B

Surgeons use laparoscopy or laparotomy to gain access to the pelvis and can either incise the affected Fallopian and remove only the pregnancy (salpingostomy) or remove the affected tube with the pregnancy (salpingectomy). Laparoscopy is less invasive than laparotomy. Early treatment of an ectopic pregnancy with methotrexate is a viable alternative to surgical treatment. If administered early in the pregnancy, methotrexate terminates the growth of the developing embryo; this may cause an abortion, or the developing embryo may then be either resorbed by the woman's body or pass with a menstrual period. Contraindications include liver, kidney, or blood disease, as well as an ectopic embryonic mass > 3.5 cm.

893. A middle age woman trying to conceive for 1 year. Her husband is healthy and his semen analysis is normal. Postcoital and anovulation test is normal. Which of the following is the best next step for this woman?

- A. Endometrial biopsy
- B. Hysterosalpingogram
- C. In-vitro fertilization
- D. Progesterone challenge test

Answer: D

The best next step is progesterone challenge test. If after giving progesterone menstruation occurs it means that her estrogen is high, if not - her estrogen is low.

894. A woman of a high-risk group (chronic pyelonephritis in anamnesis) had a vaginal delivery. The day after the delivery she complained of fever and renal pains and dysuria. Which of the following is the most likely complication in this woman?

- A. Endometritis
- B. Infectious contamination of the urinary system
- C. Infectious hematoma
- D. Thrombophlebitis of veins of the pelvis

Answer: B

This woman most likely has urinary tract infection after infectious contamination of the urinary system during the vaginal delivery.

895. A 20-year-old G2P1 at 30 weeks gestation with a known placenta previa is delivered by cesarean section under general anesthesia for vaginal bleeding and nonreassuring fetal heart rate tracing. The baby is easily delivered, but the placenta is adherent to the uterus and cannot be completely removed, and heavy uterine bleeding is noted. Which of the following is the best next step in the management of this patient?

- A. Administer methylergonovine (Methergine) intramuscularly.
- B. Administer misoprostol (Cytotec) suppositories per rectum.
- C. Administer prostaglandin F_{2α} (Hemabate) intramuscularly.
- D. Perform hysterectomy.

Answer: D

Women who have a placenta previa have about a 10% risk of also having a placenta accreta. The risk of placenta accreta is even greater in women who have a history of a previous cesarean section (estimated to be between 14% and 24%). The incidence of placenta accreta continues to increase as the numbers of prior cesarean sections increase. If a placenta accreta indeed exists, a hysterectomy is indicated.

896. A 33-year-old woman at 10 weeks presents for her first prenatal examination. Routine labs are drawn and her hepatitis B surface antigen is positive. Liver function tests are normal and her hepatitis B core and surface antibody tests are negative. Which of the following is the best way to prevent neonatal infection?

- A. Perform a cesarean delivery at term.
- B. Provide hepatitis B vaccine to the mother.
- C. Provide hepatitis B vaccine to the neonate.
- D. Provide immune globulin to the mother

Answer: C

Infection of the newborn whose mother chronically carries the hepatitis B virus can usually be prevented by the administration of hepatitis B immune globulin very soon after birth, followed promptly by the hepatitis B vaccine.

897. A 30-years-old woman complained about the presence of bloody secretions from her right breast. Which of the following is most likely the cause of her symptoms?

- A. Cystic mastopathy
- B. Fibrous mastopathy
- C. Malignant tumor
- D. Mastitis

Answer: C

Only the malignant or sometimes benign tumors can present with unilateral bloody breast discharge.

898. A 26-year-old pregnant woman at 38 weeks of pregnancy presents to the emergency department complaining of generalized pain and edema in her left leg. She denies chest pain, shortness of breath, and hemoptysis. Lower extremity ultrasound reveals no compression of a deep femoral vein after compression. Which of the following would be the best treatment option for this patient?

- A. Dabigatran
- B. Heparin ointment on her legs
- C. LMWH
- D. Warfarin

Answer: C

This woman most likely has deep venous thrombosis (DVT) based on the symptoms and ultrasound findings. The best next step for the treatment of DVT is low molecular weight heparin (LMWH). Warfarin and dabigatran are contraindicated during pregnancy. Heparin ointment is useful only for superficial venous thrombosis.

<http://www.aafp.org/afp/2008/0615/p1709.html>

899. What is the most common sign and symptom in placental abruption ?

- A. Fetal distress
- B. Uterine contractions
- C. Uterine tenderness
- D. Vaginal bleeding

Answer: D

Placental abruption is mainly a clinical diagnosis with all the above findings. the most common symptom is dark red vaginal bleeding with pain during the third trimester of pregnancy (80%) and abdominal or uterine tenderness (70%). Bleeding may occur at various times in pregnancy: Bleeding in the first trimester of pregnancy is quite common and may be due to the following: miscarriage (pregnancy loss) ectopic pregnancy (pregnancy in the fallopian tube) Bleeding in late pregnancy (after about 20 weeks) may be due to the following: placenta pre- via or placental abruption.

Reference: AlQassim Booklet. Q84

900. A 25-years-old woman came to the clinic with her 6 weeks old baby complaining of irritability, weight loss, and inability to sleep. Which of the following is the most likely diagnosis in this patient?

- A. Hashimoto thyroiditis
- B. Hyperthyroidism
- C. Postpartum depression
- D. Postpartum thyroiditis

Answer: D

Postpartum thyroiditis is a phenomenon observed following pregnancy and may involve hyperthyroidism, hypothyroidism or the two sequentially. It affects about 5% of all women within a year after giving birth. The first phase is typically hyperthyroidism. Then, the thyroid either returns to normal or a woman develops hypothyroidism. Of those women who experience hypothyroidism associated with postpartum thyroiditis, one in five will develop permanent hypothyroidism requiring lifelong treatment.

901. What is the most common birth injury?

- A. Clavicular fracture
- B. Femur fracture
- C. Hip dislocation
- D. Shoulder dislocation

Answer: A

According to the Nationwide Children's Hospital, clavicle fractures (collarbone fractures) are the most common birth injury. It almost always occurs after a rough, stressful childbirth. The most common symptoms associated with a clavicle fracture include:

Crying when the affected area is touched or moved
Little or no movement in the affected area, generally the arm on the side of the fracture
The affected side of the shoulder may appear to droop and be lower than the unaffected side
A lump may appear in the affected area, usually a few weeks after the injury

<http://www.birthinjuryguide.org/birth-injury/types/infant-broken-bones/>

902. A 71-year-old man is complaining of leakage of urine while coughing or sneezing. Which of the following is not a risk factor for this disease?
female, multiparity, obesity

- A. Atrophic vaginitis
- B. Autoimmune diseases
- C. Multiparity
- D. Obesity

Answer: B

Stress incontinence 1. Leakage of urine during any maneuver that increases abdominal pressure due to decreased anatomic support of and function of the urinary sphincter 2. Risk factors: female, multiparity, obesity, atrophic vaginitis 3. Clinical features: incontinence accompanies coughing, sneezing, laughing, exercise, lifting heavy objects; diagnosis usually made by history and bladder diary; urodynamic testing by a urologist may be helpful but is usually not necessary 4. Treatment: conservative therapy (weight loss, Kegel exercises), surgical therapy (midurethral sling) Autoimmune diseases are a risk factor for neurogenic bladder.

903. Which of the following is the most common cause of postmenopausal bleeding?

- A. Atrophic vaginitis
- B. Cervical polyp
- C. Endometrial cancer
- D. Endometrial hyperplasia

Answer: A

The most common causes are: inflammation and thinning of the vaginal lining (atrophic vaginitis) or womb lining (endometrial atrophy) – caused by lower oestrogen levels cervical or womb polyps – growths that are usually non-cancerous a thickened womb lining (endometrial hyperplasia) – this can be caused by hormone replacement therapy (HRT), high levels of oestrogen or being overweight, and can lead to womb cancer Less commonly, postmenopausal bleeding is caused by cancer.

904. A 71-year-old female present with vaginal dryness, burning and dyspareunia. She also has dysuria and increased urinary frequency. The symptoms have been present for several months but have intensified recently. Physical examination shows scarce pubic hair and reduced elasticity and turgor of the vulvar skin. Pale, dry and smooth vaginal epithelium is noted. Urine dipstick is normal. Which of the following is treatment of choice for this patient?

- A. Atrophic vaginitis
- B. Bacterial Vaginosis
- C. Candidiasis
- D. Gonorrhoea

Answer: A

Atrophic vaginitis is very common in postmenopausal women, due to the falling levels of estrogen. The term genitourinary syndrome of menopause (GSM) is now usually used instead of vulvovaginal atrophy or atrophic vaginitis.

The following can lead to atrophic vaginitis occurring:

1. Natural menopause or oophorectomy.
2. Anti-estrogenic treatments - eg, tamoxifen, aromatase inhibitors.
3. Radiotherapy or chemotherapy.
4. It can also occur postpartum or with breast-feeding, due to reduced oestrogen levels.

Symptoms

1. There may be no symptoms.
2. Dryness of the vagina is the most common symptom.
3. There may be burning or itching of the vagina or vulva.
4. Dyspareunia.
5. Vaginal discharge (usually white or yellow).
6. Vaginal bleeding or postcoital bleeding.
7. Urinary symptoms - eg, increased frequency, nocturia, dysuria, recurrent UTI, stress incontinence or urgency.

Signs

1. External genitalia may show reduced pubic hair, reduced turgor or elasticity, and a narrow introitus.
2. Be aware that vaginal examination may be uncomfortable or painful if the patient has atrophic vaginitis.
3. Vaginal examination may show:
 - Thin mucosa with diffuse erythema.
 - Occasional petechiae or ecchymoses.
 - Dryness.
 - Lack of vaginal folds.

905. A pregnant woman with a history of the previous baby with Down syndrome comes for a regular check-up. Which of the following is the best investigation in 1st trimester for this woman?

- A. Amniocentesis
- B. Glucose tolerance test
- C. PAPP-A
- D. Triple screen test

Answer: C

Here are some tests you may undergo during the first trimester of your pregnancy: Blood tests: During one of your initial examinations, your doctor or midwife will identify your blood type and Rh (rhesus) factor, screen for anemia, check for immunity to rubella (German measles), and test for hepatitis B, syphilis, and HIV and other sexually transmitted diseases. Urine tests: You will also be asked early on for a urine sample so that your doctor or midwife can look for signs of kidney infection and, if necessary, to confirm your pregnancy by measuring the hCG level. (A blood hCG test to confirm pregnancy may be used instead.) Urine samples will then be collected regularly to detect glucose (a sign of diabetes) and albumin (a protein that may indicate preeclampsia, pregnancy-induced high blood pressure). One first semester genetic test combines a blood test with an ultrasound to screen for Down syndrome may be available between 11 and 14 weeks of pregnancy. The results of a blood test that measures hCG and/or PAPP-A (pregnancy-associated plasma protein A) in maternal blood are used with an ultrasound measurement of the skin at the back of the fetus' neck (called nuchal translucency).

906. A 71-year-old female present with vaginal dryness, burning and dyspareunia. She also has dysuria and increased urinary frequency. The symptoms have been present for several months but have intensified recently. Physical examination shows scarce pubic hair and reduced elasticity and turgor of the vulvar skin. Pale, dry and smooth vaginal epithelium is noted. Urine dipstick is normal. Which of the following is treatment of choice for this patient?

- A. Clotrimazole vaginal cream
- B. Estrogen vaginal cream
- C. Metronidazole vaginal gel
- D. Topical corticosteroid cream

Answer: B

1. Atrophic vaginitis may present with vaginal itching, burning, pain, dryness, or dyspareunia.
2. In the absence of estrogen, the vaginal mucosa thins, has diminished blood supply and vaginal secretions, and there can be loss of connective tissues that provide pelvic support.
3. Treatment of the postmenopausal woman for atrophic vaginitis includes replacing estrogen, either orally or topically with vaginal creams.
4. Vaginal creams may help in alleviating local symptoms but do not provide enough systemic absorption to be relied on for the beneficial effects of estrogens on osteoporosis.
5. Oral estrogens must be used in concert with progesterone in order to avoid the risks of endometrial hyperplasia and cancer in women with an intact uterus.
6. Before providing oral estrogen therapy, careful consideration of the risks and benefits should be discussed with the patient. Potential risks include cardiovascular and venous thromboembolic disease as well as slight increased risk for both endometrial and breast cancer.
7. Topical corticosteroids, metronidazole gel, clotrimazole cream, and douching provide no benefit in treating atrophic vaginitis.

907. A 23-year-old woman presents for her postpartum visit and contraception management. She delivered by spontaneous vaginal delivery 6 weeks ago and is breastfeeding. After reviewing her history and performing physical examination, you discuss the various methods of contraception with the patient. She opts for depot medroxyprogesterone acetate (DepoProvera). Which of the following is a disadvantage of Depo-Provera?

- A. Impairment of lactation
- B. Increased risk of hepatic cancer
- C. Iron-deficiency anemia
- D. Prolonged anovulation

Answer: D

Depot medroxyprogesterone acetate (Depo-Provera) is a highly effective contraception. Its effectiveness is comparable to or even better than pills. Its mechanisms of action include: ovulation suppression, cervical mucus thickening, and decidualization of endometrium making it unfavorable for implantation. It has no impairment of lactation, and iron deficiency anemia is less likely due to amenorrhea which develops in 80% of users. Its principal disadvantages are irregular bleeding and prolonged anovulation which results in delayed return of fertility after discontinuation of the medication. Weight gain is often attributed to depot medroxyprogesterone, but conclusive evidence is lacking. Cervical and hepatic cancers do not appear to be increased and ovarian and endometrial cancers are decreased. Loss of bone mineral density is one concern, but this loss is reversible after discontinuation of the medication.

908. A 26-year-old came with foul-smelling vaginal discharge and irritated uvula. During the microscopy, there are motile protozoa with multiple flagella on a saline wet mount. Which one of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Candidiasis
- C. Lymphogranuloma venerum
- D. Trichomoniasis

Answer: D

Trichomoniasis is a sexually transmitted infection. Trichomoniasis is caused by a one-celled protozoan organism called *Trichomonas vaginalis*. It travels from person to person through genital contact during sex. Examining samples of vaginal fluid (for women) or urethral discharge (for men) under a microscope will show motile protozoa with multiple flagella.

909. A 46-year-old woman presents to your office complaining of something bulging from her vagina for the past year. It has been getting progressively more prominent. She has started to notice that she leaks urine with laughing and sneezing. She still has periods regularly every 26 days. She is married. Her husband had a vasectomy for contraception. After

appropriate evaluation, you diagnose a second-degree cystocele. She has no uterine prolapse or rectocele. Which of the following is the best treatment plan to offer this patient?

- A. Antibiotic therapy with Bactrim
- B. Anticholinergic medications
- C. Le Fort colpocleisis
- D. Surgical correction with a bladder neck suspension procedure

Answer: D

Surgical therapy for stress urinary incontinence attributed to cystocele and loss of urethral support involves suspension of the bladder neck via Kelly plication, retropubic suspension (Marshall-Marchetti-Krantz and Burch procedures), or sling procedures (Pereyra and Stamey procedures or transobturator or transvaginal tapes). Placement of a pessary is an option to relieve a cystocele, but is not ideal in this patient, who is sexually active. Antibiotics such as Bactrim would be used to treat a urinary tract infection, but would not affect stress incontinence. A Le Fort procedure is performed in patients with vaginal vault prolapse and pelvic relaxation who are poor surgical candidates and not sexually active. The procedure involves obliterating the vaginal canal to provide support to the pelvic structures. Anticholinergic drugs such as Ditropan (oxybutynin chloride) are used to relax the bladder in the treatment of detrusor instability. The use of vaginal estrogen cream may relieve vaginal atrophy and improve patient comfort in postmenopausal patients, but it will not correct the cystocele or treat incontinence.

910. Which of the following drugs is used during presents of HER2/neu receptors in breast cancer?

- A. Anastrozole
- B. Cyclophosphamide
- C. Raloxifene
- D. Trastuzumab

Answer: D

HER2 is a member of the human epidermal growth factor receptor (HER/EGFR/ERBB) family. Amplification or over-expression of this oncogene has been shown to play an important role in the development and progression of certain aggressive types of breast cancer. In recent years the protein has become an important biomarker and target of therapy for approximately 30% of breast cancer patients.

The expression of HER2 is regulated by signaling through estrogen receptors. Normally, estradiol and tamoxifen acting through the estrogen receptor down-regulate the expression of HER2.

HER2 is the target of the monoclonal antibody trastuzumab (marketed as Herceptin). Trastuzumab is effective only in cancers where HER2 is over-expressed. One year of trastuzumab therapy is recommended for all patients with HER2-positive breast cancer who are also receiving chemotherapy.

911. A mother delivers a neonate with meconium staining and Apgar scores of 3 at 1 and 5 minutes of life. She had no prenatal care and the delivery was by emergency cesarean section for what the obstetricians report as “severe fetal bradycardia.” Which of the following sequelae could be expected to develop in this intubated neonate with respiratory distress?

- A. Cataracts
- B. Hyperactive bowel sounds
- C. Microcephaly with micrognathia
- D. Sustained rise in pulmonary arterial pressure

Answer: D

The low Apgar scores, meconium staining, and ensuing respiratory distress suggest that asphyxia has occurred. During a period of asphyxia, the resulting hypoxemia, acidosis, and poor perfusion can damage a neonate's brain, heart, kidney, liver, and lungs. The resulting clinical abnormalities include cerebral edema, irritability, seizures, cardiomegaly, heart failure, renal failure, poor liver function, disseminated intravascular coagulopathy, and respiratory distress syndrome. There can be excessively high pulmonary arterial pressure at the same time systemic blood pressure begins to fall, resulting in a persistent right-to-left shunt across a patent ductus arteriosus or foramen ovale. This condition is known as persistent pulmonary hypertension of the newborn (PPHN).

912. A 38-year-old woman at 39 weeks delivers a 7-lb infant female without complications. At 2 weeks of life, the infant develops fulminant liver failure and dies. What is the most likely causative virus?

- A. Cytomegalovirus
- B. Hepatitis B
- C. Herpes simplex
- D. Parvovirus

Answer: B

Transplacental transfer of hepatitis B from the mother to fetus occurs with acute hepatitis, not chronic seropositivity. Acute infection in first trimester infects 10% of fetuses, and in third trimester 80% to 90% are affected. Perinatal transmission occurs by ingestion of infected material during delivery or exposure subsequent to birth in mothers who are chronic carriers. Some infected infants may be asymptomatic, and others develop fulminant hepatic disease. Administration of hepatitis B immune globulin after birth, followed by the vaccine, can prevent disease in infants born to mothers who are chronic carriers.

913. A woman after the regular checkup was diagnosed obesity, hirsutism, hypertension, and insulin resistance. Which of the following is the most likely final diagnosis in this woman?

- A. Kallmann syndrome
- B. Klinefelter syndrome

- C. PCOS
- D. Turner syndrome

Answer: C

Polycystic ovary syndrome(PCOS) or Stein-Leventhal syndrome signs and symptoms:

- Hirsutism
- Infertility
- Obesity and metabolic syndrome
- Diabetes
- Obstructive sleep apnea

On examination, findings in women with PCOS may include the following:

- Virilizing signs
- Acanthosis nigricans
- Hypertension
- Enlarged ovaries: May or may not be present; evaluate for an ovarian mass

<http://emedicine.medscape.com/article/256806-clinical>

<http://emedicine.medscape.com/article/256806-overview>

<http://emedicine.medscape.com/article/404754-overview>

914. A 20-year-old woman comes to the office with complaints of excessive hair growth and abnormal menses. She states that her menses are irregular, and she has a severe acne on her face. The ultrasound examination of her ovaries shows a string of pearl appearance. Which of the following is the most likely diagnosis in this patient?

- A. Congenital adrenal hyperplasia
- B. Cushing syndrome
- C. Diabetes mellitus
- D. Polycystic ovarian syndrome

Answer: D

Polycystic ovarian syndrome (PCOS), recently referred also as hyperandrogenic anovulation, is a chronic anovulation syndrome associated with androgen excess. The classic triad of PCOS is: oligomenorrhea, hirsutism, obesity. In addition to this, patients may have infertility, acne, male pattern balding or biochemically show increased androgen levels. Current recommended sonographic criteria for multifollicular ovarian morphology: 25 or more follicles per ovary (superseding the earlier Rotterdam criteria of 12 or more follicles) 14 increased ovarian size (>10 cc): less sensitive than the follicle number criteria, but has a role when image resolution does not allow accurate follicle count, e.g. transabdominal scanning, older equipment. Other morphological features include: hyperechoic central stroma peripheral location of follicles: which can give a string of pearl appearance follicles of similar size measuring 2-9 mm. The presence of a single PCO is sufficient to provide the diagnosis.

915. A woman used IUD for contraception. Now has vaginal pain and discharge. Which of the following organism is responsible for her symptoms?

- A. *Actinomyces israelii*
- B. *E. coli*
- C. *St. aureus*
- D. *Str. viridans*

Answer: A

Actinomycetes have been recognized in association with IUDs and pelvic inflammatory disease (PID) although the exact origin and routes by which the actinomyces arrive in the vagina are unknown. It is clear, however, that once in the vagina, bacteria may be pulled into the uterus by the tails of IUDs like the Dalkon Shield
<https://www.ncbi.nlm.nih.gov/pubmed/8300169>

916. Which of the following is the type of fibroids that causes abortion?

- A. Cervical fibroids
- B. Intramural fibroids
- C. Submucosal fibroids
- D. Subserosal fibroids

Answer: C

Submucoasal fibroids are the most symptomatic (bleeding, infertility) and can't be treated conservatively.

Fibroids that bulge into the uterine cavity (submucous) or are within the cavity (intracavitary) may sometimes cause miscarriages. The fertilized egg comes down the fallopian tube and takes hold in the lining of the uterus. If a submucosal fibroid happens to be nearby, it can thin out the lining and decreases the blood supply to the developing embryo. The fibroid may also cause some inflammation in the lining directly above it. The fetus cannot develop properly, and miscarriage may result.

References:

Toronto notes GY16 pg. 499

[http:// www.fibroidsecondopinion.com/fibroids-and-pregnancy/](http://www.fibroidsecondopinion.com/fibroids-and-pregnancy/)

http://www.medscape.com/viewarticle/753718_4

917. A 34-year-old G2P1 at 31 weeks gestation presents to labor and delivery with complaints of vaginal bleeding earlier in the day that resolved on its own. She denies any leakage of fluid or uterine contractions. She reports good fetal movement. In her last pregnancy, she had a low transverse cesarean delivery for breech presentation at term. She denies any medical problems. Her vital signs are normal and electronic external monitoring reveals a reactive fetal heart rate tracing and no uterine contractions. Which of the following is the most appropriate next step in the management of this patient?

- A. Perform a sterile digital examination.
- B. Perform a sterile speculum examination.
- C. Perform an amniocentesis to rule out infection.
- D. Perform an ultrasound examination.

Answer: D

Any patient who gives a history of vaginal bleeding in the third trimester should undergo an ultrasound examination as the first step in evaluation to rule out the presence of a placenta previa. A digital cervical examination performed in the presence of a placenta previa can precipitate a hemorrhage. Visualization of the cervix through a speculum allows for the identification of the bleeding source, but every effort should be made to identify placental location. There is no indication to work the patient up for infection in the case described here; therefore, an amniocentesis is not indicated. She should not be sent home even though the bleeding has resolved. She first needs to undergo an ultrasound and should be monitored for uterine contractions and further bleeding prior to being discharged.

918. A 55-year-old woman presents to the OB/GYN clinic complaining of pain during intercourse, after which she experiences vaginal bleeding and a foul discharge. She reports that she had multiple sexual partners in her youth, but has been monogamous for twenty years and has since had three children. She admits that has not seen a gynecologist in several years. On physical exam, she is pale and her cervix is nodular, with what grossly appears to be some dysplasia. Which of the following organisms is the most likely cause of her condition?

- A. Epstein Barr virus (EBV)
- B. Human T lymphotropic virus, type 1 (HTLV-1)
- C. Human immunodeficiency virus (HIV)
- D. Human papilloma virus (HPV)
- E. Schistosoma hematobium

Answer: D

Human papillomavirus infection is an infection by human papillomavirus (HPV). Most HPV infections cause no symptoms and resolve spontaneously. In some people, an HPV infection persists and results in warts or precancerous lesions. The precancerous lesions increase the risk of cancer of the cervix, vulva, vagina, penis, anus, mouth, or throat. Nearly all cervical cancer is due to HPV with two types, HPV16 and HPV18, accounting for 70% of cases. Between 60% and 90% of the other cancers are also linked to HPV. HPV6 and HPV11 are common causes of genital warts and laryngeal papillomatosis.

919. A pregnant woman at 5 weeks of pregnancy comes for a regular check-up. Which of the following is the most accurate test for ectopic pregnancy?

- A. Laparoscopy
- B. Transabdominal ultrasound
- C. Transvaginal ultrasound
- D. b-HCG titer

Answer: A

Most ectopic pregnancies can be detected using a pelvic exam, ultrasound, and blood tests. If you have symptoms of a possible ectopic pregnancy, you will have: A pelvic exam, which can detect tenderness in the uterus or fallopian tubes, less enlargement of the uterus than expected for a pregnancy, or a mass in the pelvic area. A pelvic ultrasound (transvaginal or abdominal), which uses sound waves to produce a picture of the organs and structures in the lower abdomen. A transvaginal ultrasound is used to show where a pregnancy is located. A pregnancy in the uterus is visible 6 weeks after the last menstrual period. An ectopic pregnancy is likely if there are no signs of an embryo or fetus in the uterus as expected, but hCG levels are elevated or rising. Two or more blood tests of pregnancy hormone (human chorionic gonadotropin, or hCG) levels, taken 48 hours apart. During the early weeks of a normal pregnancy, hCG levels double every 2 days. Low or slowly increasing levels of hCG in the blood suggest an early abnormal pregnancy, such as an ectopic pregnancy or a miscarriage. If hCG levels are abnormally low, further testing is done to find the cause. Sometimes a surgical procedure using laparoscopy is used to look for an ectopic pregnancy. It is the most accurate and specific test. An ectopic pregnancy after 5 weeks can usually be diagnosed and treated with a laparoscope. But laparoscopy is not often used to diagnose a very early ectopic pregnancy, because ultrasound and blood pregnancy tests are pretty accurate and noninvasive.

920. A 38-year-old female presents to the physician with amenorrhea, headache, and galactorrhea. Her pregnancy test is negative, serum prolactin is 350 mg/dL. MRI showed a pituitary mass of 15 mm. Which of the following is the most likely diagnosis?

- A. Astrocytomas
- B. Craniopharyngioma
- C. Kallmann syndrome
- D. Prolactinoma

Answer: D

Prolactinoma 1. Prolactin secreting tumor is the most common cause in adolescents 2. Prolactinomas are the most common hormone-secreting pituitary tumors. 3. Based on its size, a prolactinoma can be classified as a microprolactinoma (< 10 mm diameter) or a macroprolactinoma (>10 mm diameter). 4. Patients with microprolactinoma generally have an excellent prognosis. 5. Macroprolactinomas have a tendency to grow with time and require aggressive treatment to prevent complications. 6. Clinical presentation: Headache, amenorrhea, galactorrhea and visual disturbance if tumor affect the optic chiasm, e.g. bitemporal hemianopsia or total vision loss in severe cases. Diagnosis 1. Elevated serum PRL (prolactin) 2. TSH and pregnancy test must be performed 3. MRI: A serum PRL value of 200 ng/mL or greater in the presence of a macroadenoma (> 10 mm) is virtually diagnostic of prolactinoma. Treatment 1. Bromocriptine 2. Cabergoline. Better tolerated than bromocriptine.

921. Which of the following is the best to induce ovulation?

- A. Clomiphene citrate
- B. Estrogen replacement therapy
- C. Oral contraceptive pills
- D. Progesterone replacement therapy

Answer: A

Medical induction of ovulation: clomiphene citrate, human menopausal gonadotropins (HMG [Pergonal®]), LHRH, recombinant FSH, and metformin Metformin may be used alone or in conjunction with clomiphene citrate for ovulation induction ovarian drilling (perforate the stroma), wedge resection of the ovary bromocriptine (if hyperprolactinemia) TORONTONOTE

922. A woman comes with complaints of amenorrhea and bilateral discharge from her breast. Her prolactin level is high. Which of the following is the best next step?

- A. Check LH/FSH ratio
- B. Check estrogen level
- C. MRI
- D. TSH level

Answer: C

Amenorrhea with nipple discharge and high prolactine level are typical for hyperprolactinemia (pituitary lesion should be excluded).

Amenorrhea and high prolactine can be associated also with hypothyroid but from the scenario there is no specific hints about hypothyroid. Magnetic resonance imaging (MRI) of the head should be performed in a patient with any degree of hyper-prolactinemia to look for a mass lesion in the hypothalamic-pituitary region, except if the patient is taking a medication known to cause hyperprolactinemia.

(UpToDate)

References:

Toronto notes 2017, GY 10

<http://www.aafp.org/afp/2013/0601/p781.html>

923. A 35-year-old woman is using IUD since 2 weeks. She presents with fever, lower abdominal pain, and foul-smell vaginal discharge. Which of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Candidiasis
- C. Ectopic pregnancy
- D. Pelvic inflammatory disease
- E. Vaginal trichomoniasis

Answer: D

Regardless of containing progestogen or copper, potential side effects of intrauterine devices include expulsion, uterus perforation, pelvic inflammatory disease (especially in the first 21 days after insertion), as well as irregular menstrual pattern.

924. A woman has adenomyosis. Which of the following is a definitive treatment for adenomyosis?

- A. Ablation
- B. Hysterectomy
- C. NSAID
- D. OCPs

Answer: B

Complete eradication of deep adenomyosis is difficult and results in high treatment failure. That is why hysterectomy is the only definitive treatment.

Reference: First Aid USMLE Step 2 CK 2014, page 370 (TABLE 2.12-4.)

925. A 39-year-old G3P3 presents for her postpartum examination and desires a long-term contraceptive method, but is unsure if she wants sterilization. She has been happily married for 15 years and denies any sexually transmitted diseases. Her past medical history is significant for mild hypertension, for which she takes a low-dose diuretic. She is considering the copper intrauterine device and wants to know how it works. Which of the following is the best explanation for the mechanism of the action of the copper intrauterine device (IUD)?

- A. An inflammatory response within the endometrium kills sperm.
- B. Chronic bacterial endometritis interferes with implantation.
- C. Decreased tubal motility inhibits ovum transport.
- D. Premature endometrial sloughing associated with menorrhagia causes early abortion.

Answer: A

A localized inflammatory response in the endometrium initiates lysosomal activation which is spermicidal thereby preventing fertilization of the ovum. The endometrium is also unsuitable for implantation due to the inflammatory response. With progestin IUDs thickened cervical mucus may interfere with sperm penetration, but this is not consistent and cannot be relied on for contraceptive effect.

926. A pregnant lady with hypotension (blood pressure is 90/60 mmHg). Which of the following is a type of anesthesia you will give her?

- A. Epidural
- B. General
- C. Pipedural
- D. Spinal

Answer: B

Absolute contraindications to regional anesthesia (epidural, spinal, or combination) include the following:

- Refractory maternal hypotension
- Maternal coagulopathy
- Maternal use of a once-daily dose of low-molecular-weight heparin (LMWH) within 12 hours
- Untreated maternal bacteremia
- Skin infection over the site of needle placement
- ↑ ICP caused by a mass lesion

Reference: First Aid USMLE Step 2 CK 2014, page 336

927. A 61-year-old woman comes to the office with complaints of constipation, weight loss, and abdominal distention. She had menopause 11 years ago and she has never had children. A pelvic ultrasound was performed and had been found a pelvic mass in the ovary. Which of the following would be the best next step to confirm the diagnosis?

- A. CA-125
- B. Laparotomy with excisional biopsy
- C. Pap smear
- D. Transcutaneous incisional biopsy

Answer: B

This woman most likely has ovarian cancer based on the symptoms and ultrasound examination. To confirm the diagnosis should be done laparotomy with excisional biopsy. The transcutaneous incisional biopsy is contraindicated because we can spread malignant cells into the peritoneum. CA-125 ovarian tumor marker has never used as a confirmation of a diagnosis. Pap smear is used for cervical cancer, not for ovarian cancer.

928. A 41-year-old woman had a baby with Down syndrome 10 years ago. She is anxious to know the chromosome status of her fetus in her current pregnancy. She is currently at 8 weeks of gestation. Which of the following tests will provide the most rapid diagnosis of Down syndrome?

- A. Amniocentesis

- B. CVS
- C. Multiple maternal serum marker analysis
- D. Sequential testing using nuchal fold measurements and maternal serum markers

Answer: B

Amniocentesis, cystic hygroma aspiration, and CVS are techniques of obtaining fetal cells for cytogenetic analysis. Amniotic fluid cells (obtained by amniocentesis at 14-20 weeks) require tissue culture to obtain adequate cell numbers for analysis. Fetal cells obtained by percutaneous umbilical blood sampling (PUBS) or cystic hygroma aspiration may not be obtained early in the pregnancy. Maternal serum analyte analysis is used for screening otherwise low-risk women for Down syndrome and is not indicated in this patient of advanced maternal age with a prior affected child. Chorionic villi harvested at 10 to 13 weeks will provide the earliest diagnosis of Down syndrome out of the listed evaluation methods.

929. A 41-year-old woman undergoes exploratory laparotomy for a persistent adnexal mass. Frozen section diagnosis is serous carcinoma. What is the likelihood that the contralateral ovary is involved in this malignancy?

- A. 15%
- B. 33%
- C. 5%
- D. 50%

Answer: B

Serous carcinoma is the most common epithelial tumor of the ovary. Bilateral involvement characterizes about one-third of all serous carcinomas.

930. A 39 year-old woman was seen in the Gynaecological Outpatient Clinic with excessive and offensive vaginal discharge. What organism is the most likely cause of her vaginal discharge?

- A. Chlamydia trachomatis
- B. Gonococcal infection
- C. Staphylococcus aureus
- D. Trichomonous vaginalis

Answer: D

1. Trichomoniasis is infection of the vagina or male genital tract with *Trichomonas vaginalis* (TV). 2. TV is a flagellated protozoan. It is a sexually transmitted infection which usually causes an offensive vaginal discharge. 3. It can be asymptomatic or cause urethritis, vaginitis, or occasionally cystitis, epididymitis, or prostatitis. 4. Diagnosis is by direct microscopic examination, dipstick tests, or nucleic acid amplification tests of vaginal secretions or by urine or urethral culture. 5. Patients and sex partners are treated with metronidazole or tinidazole.

931. A 27-year-old woman G3P3 comes to the outpatient office at 34 weeks of gestation for a regular checkup. Her first pregnancy was delivered by cesarean section and the second with the help of forceps. Which of the following is the best delivery method for this patient?

- A. Cesarean section at 37 weeks
- B. Cesarean section at 39-41 weeks
- C. Vaginal delivery with induction at 37 weeks with oxytocin
- D. Vaginal delivery without induction at 39-41 weeks

Answer: D

This woman has no any indication for cesarean section and no contraindication for vaginal delivery. So the best method of delivery is vaginal delivery without induction at 39-41 weeks.

932. A 15-year-old woman girl has irregular periods since menarche. Which of the following is the best treatment for this woman?

- A. Pelvic ultrasound
- B. Reassurance
- C. TSH and T4 level
- D. Urine b-hCG

Answer: B

It's not unusual, especially in the first 2 years after menarche, to skip periods or to have an irregular menstrual cycle.

933. In a 63-years old female after an examination with Pap smear was found ASCUS (atypical squamous cells of undetermined significance) and positive HPV. Which of the following is the best next step for this woman?

- A. Colposcopy with biopsy
- B. Repeat Pap and co-test in 5 years
- C. Rescreen in 5 years.
- D. colposcopy

Answer: A

Summary of Cervical Cancer Screening Results and Management for Women 30 Years of Age or Older:

- 1) Normal Pap and Negative HPV - Rescreen in 5 years.
- 2) Normal Pap and Positive HPV - Repeat co-test in one year or do HPV DNA typing now
- 3) ASCUS Pap, No HPV Test - Repeat cytology in one year or do HPV test now
- 4) ASCUS Pap and Negative HPV or LSIL Pap and Negative HPV - Repeat Pap and co-test at interval as per ASCCP guidelines.
- 5) ASCUS Pap and Positive HPV or LSIL Pap and Positive or Unknown HPV or ASC-H Pap or HSIL Pap - Colposcopy and/or referral to gynecologist.

<https://www.cdc.gov/cancer/knowledge/provider-education/cervical/followup.htm>

934. A term large-for-gestational age newborn infant was born 50 hours ago by cesarean section to a 26-year-old primigravida mother with insulin-dependent gestational diabetes. The infant's initial glucose was 25 mg/dL, but after feeding subsequent glucoses have all been above 60 mg/dL. The infant is now diaphoretic and irritable, and seems to have some twitching and tremors of the extremities. The most likely cause of this infant's problems is which of the following?

- A. Hybernatermia
- B. Hyperphosphatemia
- C. Hypocalcemia
- D. Hypoglycemia

Answer: C

Congenital heart disease, neural tube defects, small left colon, and metabolic derangements are all more common in infants of diabetic mothers. Hypoglycemia in these infants is usually seen in the first 24 hours of life. In utero exposure to the mother's hyperglycemia leads to fetal islet cell hypertrophy and beta cell hyperplasia, resulting in increased insulin production. After the umbilical cord is severed, that glucose supply is abruptly terminated and the elevated insulin levels cause hypoglycemia. Between 48 and 96 hours of life, these infants have usually achieved glycemic control. However, many now develop hypocalcemia and hypomagnesemia. Hypocalcemia is thought to result from delayed parathormone (PTH) synthesis and/or responsiveness in the infant of a diabetic mother. Symptoms of hypocalcemia may include irritability, sweating, tremors, twitches, seizures, and arrhythmias. In the vignette, the child was showing symptoms of hypocalcemia in the appropriate time frame after delivery. Treatment of symptomatic infants is intravenous calcium gluconate.

935. Following a vaginal delivery, a woman develops a fever, lower abdominal pain, and uterine tenderness. She is alert, and her blood pressure and urine output are good. Large gram-positive rods suggestive of clostridia are seen in a smear of the cervix. Which of the following is most closely tied to a decision to proceed with hysterectomy?

- A. Close observation for renal failure or hemolysis
- B. Fever of 103°C
- C. Gas gangrene
- D. High-dose antibiotic therapy
- E. Immediate radiographic examination for hydrosalpinx

Answer: C

Gas gangrene (also known as clostridial myonecrosis and myonecrosis) is a bacterial infection that produces gas in tissues in gangrene. This deadly form of gangrene usually is caused by *Clostridium perfringens* bacteria. It is a medical emergency. About 1000 cases of gas gangrene occur yearly in the United States. Myonecrosis is a condition of necrotic damage, specific to muscle tissue. It is often seen in infections with *C. perfringens* or any of myriad soil-borne anaerobic bacteria. Bacteria cause myonecrosis by specific exotoxins. These microorganisms are opportunistic and, in general, enter the body through significant skin breakage. Gangrenous infection by soil-borne bacteria was common in the combat injuries of soldiers well into the 20th century, because of nonsterile field surgery and the basic nature of care for severe projectile wounds.

936. A 31-year-old G0 woman presents with difficulty becoming pregnant. She reports trying to conceive a child for over a year; however, she has not been successful. Past medical history is significant for type 2 diabetes mellitus and obesity. On physical exam, there is acne and hair on the upper lip and chin. There is also acanthosis nigricans in the posterior neck. Blood tests reveal an elevated free testosterone level and LH:FSH of 3. Which of the following is the best next step in treatment her infertility?

- A. Clomiphene
- B. Metformin
- C. Oral contraceptive pills
- D. Weight reduction

Answer: A

Explanation: Women who are not attempting to conceive: Treat with a combination of OCPs, progestin, and metformin (or other insulin-sensitizing agents). Women who are attempting to conceive: Clomiphene +/- metformin is the first-line treatment for ovulatory stimulation. Symptom-specific treatment: Cardiovascular risk factors and lipid levels: Diet, weight loss, and exercise plus potentially lipid-controlling medication (e.g., statins) Reference: First Aid USMLE Step 2 CK 2014, page 391

937. When to give an antibiotic for a woman whom will be done a cesarean section?

- A. After 1 hour of the operation
- B. Post umbilical cord clamping
- C. Pre-operation
- D. There is no need to give antibiotics

Answer: C

Cesarean delivery is frequently complicated by surgical site infections (SSIs), endometritis and urinary tract infection. Recent evidence supports the use of pre-incision, broad-spectrum antibiotics which result in less maternal morbidity with no disadvantage to the neonate.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3059069/>

938. Which of the following is considered stillbirth at which gestational age?

- A. 10 weeks
- B. 14 weeks
- C. 18 weeks
- D. 22 weeks

Answer: D

Stillbirth is typically defined as fetal death at or after 20 to 28 weeks of pregnancy.

939. A 30-year-old lady having thick whitish vaginal discharge, odorless and labial erythema. Which of the following is the most likely cause of the symptoms?

- A. Bacterial vaginosis
- B. Candida infection
- C. Lymphogranuloma veneru
- D. Trichomonas vaginalis

Answer: B

Candida vulvovaginitis: Erythematous, excoriated vulva/vagina with thick white discharge without odor.

940. A delivery before 37 weeks gestation is considered preterm. Which of the following is not a risk factor for preterm delivery?

- A. Cervical incompetence
- B. Diabetes mellitus
- C. Premature rupture of membranes
- D. Uterine abnormalities

Answer: B

1. Labor (contractions resulting in cervical change) that begins before 37 wk gestation is considered preterm. 2. Risk factors include premature rupture of membranes, uterine abnormalities, infection, cervical incompetence, prior preterm birth, multifetal pregnancy, and placental abnormalities. 3. Diagnosis is clinical. 4. Causes are identified and treated if possible. 5. Management typically includes bed rest, tocolytics (if labor persists), corticosteroids (if gestational age is ≥ 34 wk), and possibly magnesium sulfate (if gestational age is < 32 wk). 6. Antistreptococcal antibiotics are given pending negative anovaginal culture results.

941. You are called to the emergency department to evaluate an 18-year-old woman for a vulvar laceration. She is accompanied by her mother and father. The father explains that the injury was caused by a fall onto the support bar on her bicycle. You interview the woman alone and find out that her father has been sexually assaulting her. Which of the following statements best describes injuries related to sexual assault?

- A. More than 50% of victims will have an injury.
- B. Most injuries are considered major and require surgical correction.
- C. Most injuries require hospitalization.
- D. Vaginal and vulvar lacerations are common in virginal victims.

Answer: D

Injuries occur in 12% to 40% of sexual assault victims. Most occur when the victim is restrained or physically coerced into the sexual act. Most are minor and require simple repair. Only 1% require major surgical repair and hospitalization. The physician should evaluate for injuries such as abrasions, bruises, scratches, and lacerations on the neck, abdomen, back, buttocks, and extremities, as well as the pelvic area. Lacerations of the vagina and vulva are common in children, virginal victims, and elderly women. If oral penetration was forced, the oropharynx should also be examined.

942. In a 53-years old female after an examination with Pap smear was found ASCUS (atypical squamous cells of undetermined significance) and negative HPV. Which of the following is the best next step for this woman?

- A. Colposcopy with biopsy
- B. Repeat Pap and co-test in 1 year
- C. Repeat Pap screen in 1 year
- D. Rescreen in 5 years.

Answer: B

Explanation Summary of Cervical Cancer Screening Results and Management for Women 30 Years of Age or Older

- 1) Normal Pap and Negative HPV - Rescreen in 5 years.
- 2) Normal Pap and Positive HPV - Repeat co-test in one year or do HPV DNA typing now
- 3) ASCUS Pap, No HPV Test - Repeat cytology in one year or do HPV test now
- 4) ASCUS Pap and Negative HPV or LSIL Pap and Negative HPV - Repeat Pap and co-test at interval as per ASCCP guidelines.
- 5) ASCUS Pap and Positive HPV or LSIL Pap and Positive or Unknown HPV or ASC-H Pap or HSIL Pap - Colposcopy and/or referral to gynecologist.

<https://www.cdc.gov/cancer/knowledge/provider-education/cervical/followup.htm>

943. A 46-year-old female comes with complaints of amenorrhea for 6 months and hot flashing and sweats at night. Which of the following is the best hormone to confirm her diagnose?

- A. Estrogen
- B. FSH
- C. LH
- D. Progesterone

Answer: B

This woman most likely has menopause. The anterior pituitary secretes FSH and LH at high levels due to the dysfunction of the ovaries and consequent low estrogen levels. So, serum follicle-stimulating hormone (FSH) measurement alone can be used to diagnose the menopause. Two FSH measurements with one-month interval have been a common practice.

944. A 30-year-old G1P0 at 8 weeks gestation presents for her first prenatal visit. She has no significant past medical or surgical history. A 29-year-old friend of hers just had a baby with Down syndrome and she is concerned about her risk of having a baby with the same problem. The patient denies any family history of genetic disorders or birth defects. You should tell her that she has an increased risk of having a baby with Down syndrome in which of the following circumstances?

- A. Her pregnancy was achieved by induction of ovulation and artificial insemination
- B. She has an incompetent cervix.
- C. She has had three first-trimester spontaneous abortions.
- D. The age of the father of the baby is 40 years or older.

Answer: C

The risk of aneuploidy is increased with multiple miscarriages not attributable to other causes such as endocrine abnormalities or cervical incompetence. Paternal age does not contribute significantly to aneuploidy until probably age 55, and most risks of paternal age are for point mutations. A 45, X karyotype results from loss of chromosome material and does not involve increased risks for nondisjunctional errors. Similarly, induced ovulation does not result in increased nondisjunction, and hypermodel conceptions (triploidy) do not increase risk for future pregnancies.

945. An 22-year-old pregnant woman at 10 weeks of pregnancy with diabetic nephropathy comes to initial check-up. Her blood pressure is 162/102 mmHg and urine dipstick reveals +3 protein. Which of the following is the best next step for this patient?

- A. Enalapril
- B. Methyldopa
- C. Observation
- D. Termination of pregnancy

Answer: B

Methyldopa is a drug of first choice for control of mild to moderate hypertension in pregnancy. Oral hydralazine, a direct vasodilator, is effective as monotherapy or as add-on therapy to methyldopa in the long term management of chronic hypertension in pregnancy. The available data are insufficient to rule out unrecognised adverse effects of early and pro- longed use of β -blockers in pregnancy.

Reference:http://www.medscape.com/viewarticle/406535_6

946. A 35-year-old woman at 32 weeks gestation is brought to the emergency room with sudden onset of heavy vaginal bleeding. She has no pain or uterine contractions. Examination shows an active bright red bleeding from the cervix. Which of the following is the most likely diagnosis?

- A. Incomplete abortion
- B. Placenta previa
- C. Threatened abortion
- D. Vasa previa

Answer: B

Placenta Previa

1. Definition: A placenta that is situated in the lower uterine segment.
2. Risk factors: Prior C-sections, grand multiparous, advanced maternal age, multiple gestation, prior placenta previa.
3. Symptoms: Painless, third trimester, bright red bleeding that often ceases in 1–2 hours with or without uterine contractions.

On Examination:

1. Fundal level and uterine external palpation are normal.
2. Pelvic examination is absolutely contraindicated (Fatal bleeding).

Diagnosis: Transabdominal (Not transvaginal) ultrasound. (Do not perform a vaginal exam)

Treatment:

1. Management of placenta previa depends on the severity of bleeding and the age of pregnancy.
2. Resuscitation is the best next step.
3. Bed rest and sexual abstinence.
4. Tocolytics can be used to delay delivery and reduce maternal bleeding risk in cases of a preterm fetus with immature lungs and mild maternal bleeding.
5. When delivery is indicated, perform by caesarean section.
6. Vaginal delivery can be performed with a low-lying placenta.

947. A 36-year-old woman drops by your office unexpectedly and wants to be seen for chronic pelvic pain. She has seen you in the past for well-woman examinations and has been treated for chlamydia. She smokes and drinks socially. She has no medical problems or prior surgeries. During questioning her about her chief complaint, she reveals that she was sexually assaulted last night at a club after having drinks with some girlfriends. You attempt to take detailed history of the assault; however, the woman's memory seems cloudy and inconsistent. Her physical examination is unremarkable. The victim's inability to think clearly and remember things is best explained by which of the following?

- A. Alcohol use
- B. Head injury
- C. Illicit drug use
- D. Rape trauma syndrome

Answer: D

As part of the rape trauma syndrome, victims of sexual assault may appear calm, tearful, or agitated, or they may demonstrate a combination of these emotions. In addition, victims of sexual assault may suffer an involuntary loss of cognition wherein they cannot think clearly or remember things.

948. A 20-year-old woman presents to your office for routine well-woman examination. She has a history of acne, for which she takes minocycline and isotretinoin on a daily basis. She has a history of epilepsy that is well-controlled on valproic acid. She also takes a combined oral contraceptive birth control pill containing norethindrone acetate and ethinyl estradiol. She is a nonsmoker but drinks alcohol on a daily basis. She is concerned about the effectiveness of her birth control pill, given all the medications that she takes. She is particularly worried about the effects of her medications on a developing fetus in the event of an unintended pregnancy. Which of the following substances that she ingests has the lowest potential to cause birth defects?

- A. Alcohol
- B. Isotretinoin
- C. Progesterone
- D. Tetracyclines

Answer: C

Alcohol is an enormous contributor to otherwise preventable birth defects. Sequelae include retardation of intrauterine growth, craniofacial abnormalities, and mental retardation. The occasional drink in pregnancy has not been proved to be deleterious. Isotretinoin (Accutane) is a powerful drug for acne that has enormous potential for producing congenital anomalies when ingested in early pregnancy; it should never be used in pregnancy. Tetracyclines interfere with development of bone and can lead to stained teeth in children. Progesterones have been implicated in multiple birth defects, but controlled studies have failed to demonstrate a significant association with increased risk. Patients who have inadvertently become pregnant while on birth control pills should be reassured that the incidence of birth defects is no higher for them than for the general population. Phenytoin (Dilantin) is used for epilepsy and can be associated with a spectrum of abnormalities, including digital hypoplasia and facial abnormalities.

949. A female has genital warts over the past years. Which of the following serotypes of HPV cause this disease?

- A. 16 and 18
- B. 16 and 31
- C. 31 and 33
- D. 6 and 11

Answer: D

Genital warts are symptoms of a contagious sexually transmitted disease caused by some types of human papillomavirus (HPV). Warts are the most easily recognized symptom of genital HPV infection. About 90% of those who contract HPV will not develop genital warts. HPV types 6 and 11 are most frequently the cause of genital warts. It is spread through direct skin-to-skin contact, usually during oral, genital, or anal sex with an infected partner. While some types of HPV cause cervical cancer and anal cancers, these are not the same types of HPV that cause genital warts.

950. Which of the following is a risk factor for endometriosis?

- A. Early menarche
- B. Human papillomavirus
- C. Late-Onset Menopause
- D. Multiparity

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity.
2. Approximately 30-40% of women with endometriosis will be subfertile.
3. Patients with endometriosis do not frequently have any physical examination findings beyond tenderness related to the site of involvement.
4. The most common finding is nonspecific pelvic tenderness.
5. Laparoscopy is considered the primary diagnostic modality for endometriosis. This is an invasive procedure with an overall sensitivity of 97% but with a specificity of only 77%.

Risk factors include:

1. Nulliparity
2. Early menarche
3. Shorter menstrual cycles
4. Menstrual outflow obstruction

951. Which of the following is the most appropriate screening test for a woman at high risk of developing osteoporosis?

- A. Dual-energy x-ray absorptiometry
- B. Serum calcium
- C. Serum phosphorus
- D. X-ray of the pelvis and spine

Answer: A

1. Osteoporosis is characterized by low bone mass, microarchitectural disruption, and skeletal fragility, resulting in decreased bone strength and an increased risk of fracture.
2. It is the most common cause of pathologic fractures in thin, elderly women and men.
3. It is the most common metabolic bone disease.
4. Osteoporosis generally does not become clinically apparent until a fracture occurs.
5. Usually asymptomatic until fractures (e.g., Colles, femoral neck, and vertebral) and neurovascular impingement occur
6. DEXA is currently the gold standard and most widely used investigation for detecting osteoporosis and osteopenia.
7. DEXA focuses mainly on 2 areas i.e. spine and pelvis.
8. T-score of -1 to -2.5 SD indicates osteopenia
9. T-score of less than -2.5 SD indicates osteoporosis
10. T-score of less than -2.5 SD with fragility fracture(s) indicates severe osteoporosis
11. Prevention and treatment with calcium and vitamin D supplementation.
12. Bisphosphonates inhibit bone resorption and are first-line treatment
13. Smoking cessation (smoking accelerates bone loss) and weight-bearing exercises help maintain and even restore some bone density.
14. Selective estrogen receptor modulators (e.g., raloxifene) help increase bone density with fewer adverse effects than classic hormone replacement therapy.
15. Fracture is the most devastating consequence of low BMD/osteoporosis.

952. Which of the following is the most common symptom in premenstrual dysphoric disorder?

- A. Abdominal bloating
- B. Breast tenderness
- C. Headache
- D. Irritability

Answer: D

Premenstrual dysphoric disorder (PMDD) is a severe and disabling form of premenstrual syndrome affecting 3–8% of menstruating women. The disorder consists of a "cluster of affective, behavioral and somatic symptoms" that recur monthly during the luteal phase of the menstrual cycle. PMDD was added to the list of depressive disorders in the Diagnostic and Statistical Manual of Mental Disorders in 2013. The exact pathogenesis of the disorder is still unclear and is an active research topic. Treatment of PMDD relies largely on antidepressants that modulate serotonin levels in the brain via serotonin reuptake inhibitors as well as ovulation suppression using contraception. The symptoms in PMDD can be both physical and emotional with mood symptom being dominant. The most debilitating symptoms are emotional and include "irritability, depression, mood lability, anxiety, feelings of 'loss of control', difficulty concentrating and fatigue." The physical symptoms include "abdominal bloating, breast tenderness, headache and generalized aches."

953. Which of the following is an absolute contraindication for external cephalic version?

- A. Oligohydramnios
- B. Placenta previa
- C. Pre-eclampsia with proteinuria
- D. Small-for-gestational-age fetus

Answer: B

There are two types of contraindications : Relative contraindication means that caution should be used when two drugs or procedures are used together. (It is acceptable to do so if the benefits outweigh the risk.) Absolute contraindication it means that event or substance could cause a life-threatening situation thus it should be avoided. External cephalic version is a procedure in which the fetus is rotated from the breech to the cephalic presentation by manipulation through the mother's abdomen. ECV is indicated if breech presentation is persistent after 37 weeks. If ECV fails, then do cesarean delivery. Absolute Contraindications 1. If caesarean section is indicated, e.g. placenta previa, previous Classical Caesarean section. 2. Abnormal cardiotocography; fetal heart rate abnormalities 3. Ruptured membranes 4. Contracted pelvis 5. Fetal death 6. Placental abruption Relative contraindication 1. Small-for-gestational-age fetus with abnormal Doppler parameters; Fetal hypoxia 2. Pre-eclampsia with proteinuria; or Antepartum haemorrhage in the last week 3. Major fetal anomalies; Unstable lie; Multiple pregnancy 4. A restrictive nuchal cord, Hyper-extended head 5. Major uterine anomaly ; Scarred uterus 6. Oligohydramnios or hydramnios

954. A 55-year-old woman presents to your office for consultation regarding her symptoms of menopause. She stopped having periods 8 months ago and is having severe hot flushes. The hot flushes are causing her considerable stress. What should you tell her regarding the psychologic symptoms of the climacteric?

- A. They are not affected by environmental factors.
- B. They are not related to her changing levels of estrogen and progesterone.
- C. They are related to a drop in gonadotropin levels.
- D. They commonly include depression, irritability, poor concentration, and impaired memory.

Answer: D

Psychological symptoms during the climacteric occur at a time when much is changing in a woman's life. Steroid hormone levels are dropping, and the menses is stopping. However, studies show these two factors to be unrelated to emotional symptoms in most women. Many factors, such as hormonal, environmental, and intrapsychic elements, combine to cause the symptoms of the climacteric such as insomnia; vasomotor instability (hot flushes, hot flashes); emotional lability; and genital tract atrophy with vulvar, vaginal, and urinary symptoms.

955. A 32-year-old pregnant woman at 32 weeks of pregnancy comes to the emergency room because of a headache. Her blood pressure is 160/110 mmHg. Which of the following is the best next step for this woman?

- A. IV betamethasone
- B. IV furosemide
- C. Methyldopa
- D. Urine dipstick analysis

Answer: D

This woman most likely has preeclampsia. To confirm the diagnosis we need to do urine dipstick analysis to check for proteinuria. Also, methyldopa is a good for hypertension however not for an acute presentation like in this woman. In the acute presentation of hypertension in pregnancy is used IV labetalol or IV hydralazine. IV furosemide is contraindicated in pregnancy. There is no need to give IV bethamethasone right now.

956. When a birth consider premature?

- A. Less than 20 weeks
- B. Less than 37 weeks
- C. Less than 40 weeks
- D. Less than 42 weeks

Answer: B

Preterm birth, also known as premature birth, is the birth of a baby at fewer than 37 weeks gestational age. These babies are known as preemies or premmies. Symptoms of preterm labor include uterine contractions which occur more often than every ten minutes or the leaking of fluid from the vagina. Premature infants are at greater risk for cerebral palsy, delays in development, hearing problems, and sight problems. These risks are greater the earlier a baby is born.

957. A 33-year-old G2P3 woman underwent a routine cervical Pap smear during an annual exam. The cytological evaluation showed a CIN III. What viruses are thought to be major culprits?

- A. HPV 16 and 18
- B. HPV 2 and 7
- C. HPV 43 and 44
- D. HPV6 and 11

Answer: A

Human papillomavirus (HPV) is the cause of genital warts. It is one of the most pervasive of all the sexually transmitted diseases. There are multiple serotypes of papillomavirus and serotypes 16, 18, 31, 33 are linked to cervical cancer. Serotypes HPV 6 and 11 cause condyloma acuminata. Common warts are caused by HPV serotypes 2 and 7.

958. What is the most common post-operative complication of hysterectomy ?

- A. Atelectasis
- B. Bleeding
- C. Infection
- D. UTI

Answer: C

The most common complications of hysterectomy can be categorized as infectious, venous thromboembolic, genitourinary (GU) and gastrointestinal (GI) tract injury, bleeding, nerve injury, and vaginal cuff dehiscence. Infectious complications after hysterectomy are most common, ranging from 10.5% for abdominal hysterectomy to 13.0% for vaginal hysterectomy and 9.0% for laparoscopic hysterectomy.

<https://www.ncbi.nlm.nih.gov/pubmed/23635631>

959. In pregnant woman at 24 weeks of pregnancy, there is a backache and fever to 38 ° C, weakness, and loss of appetite. Costovertebral angle tenderness is positive on both sides. In the blood analysis, there is leukocytosis with a shift to the left. In the urine analysis, there is leukocyturia, bacteriuria. Which of the following is the most likely diagnosis?

- A. Acute glomerulonephritis
- B. Acute pyelonephritis
- C. Hydronephrosis
- D. Urolithiasis

Answer: B

Pyelonephritis is inflammation of the kidney, typically due to a bacterial infection. Symptoms most often include fever and flank tenderness. Other symptoms may include nausea, burning with urination, and frequent urination. Complications may include pus around the kidney, sepsis, or kidney failure.

It is typically due to a bacterial infection, most commonly *Escherichia coli*. Risk factors include sexual intercourse, prior urinary tract infections, diabetes, structural problems of the urinary tract, and spermicide use. The mechanism of infection is usually spread up the urinary tract. Less often infection occurs through the bloodstream. Diagnosis is typically based on symptoms and supported by urinalysis. If there is no improvement with treatment, medical imaging may be recommended.

960. A 37-year-old G3P2 presents to your office for her first OB visit at 10 weeks gestation. She has a history of Graves disease and has been maintained on propylthiouracil (PTU) as treatment for her hyperthyroidism. She is currently euthyroid but asks you if her condition poses any problems for the pregnancy. Which of the following statements should be included in your counseling session with the patient?

- A. Infants born to mothers on PTU may develop a goiter and be clinically hypothyroid.
- B. Propylthiouracil does not cross the placenta.
- C. She may need to discontinue the use of the thionamide drug because it is commonly associated with leukopenia.
- D. Thyroid storm is a common complication in pregnant women with Graves disease.

Answer: A

Hyperthyroidism in pregnancy is treated with thionamides, namely, propylthiouracil (PTU) and methimazole. Transient leukopenia occurs in about 10% of patients taking thionamide drugs, but does not necessitate stopping the medication. Agranulocytosis which is a rare complication necessitates discontinuation of the drug. Fetal exposure to thionamides, which can cross the placenta, may cause goiterous hypothyroidism. Women who remain hyperthyroid despite therapy have a higher incidence of preeclampsia and heart failure. Thyroid storm occurs only rarely in untreated women with Graves disease. This emergent medical condition involves thyrotoxicosis, which is characterized by fever, tachycardia, altered mental status, vomiting, diarrhea, and cardiac arrhythmia.

961. Uterine Myoma was found incidentally by US during the first trimester of pregnancy. What will you tell the pregnant woman?

- A. It will increase after pregnancy
- B. Most likely it will regress postpartum
- C. Most likely there will be an abortion
- D. Most likely you will have infertility

Answer: B

Almost 90 percent of women with fibroids detected in the first trimester will have regression in total fibroid volume when re-evaluated three to six months postpartum, but 10 percent will have an increase in volume. Regression may be less in women who use progestin-only contraception. However, it's possible that fibroids could cause infertility or pregnancy loss. Submucosal fibroids may prevent implantation and growth of an embryo. In such cases, doctors often recommend removing these fibroids before attempting pregnancy or if you've had multiple miscarriages.

Reference: 1. [http://www.uptodate.com/contents/pregnancy-in-women-with-uterine-leiomyomas-fibroids?](http://www.uptodate.com/contents/pregnancy-in-women-with-uterine-leiomyomas-fibroids?source=outline_link&view=text&anchor=H26#H26)

[source=outline_link&view=text&anchor=H26#H26](http://www.uptodate.com/contents/pregnancy-in-women-with-uterine-leiomyomas-fibroids?source=outline_link&view=text&anchor=H26#H26)

2. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136622/>

[http://www.mayoclinic.org/diseases-](http://www.mayoclinic.org/diseases-conditions/uterinefibroids/basics/complications/con-20037901)

[conditions/uterinefibroids/basics/complications/con-20037901](http://www.mayoclinic.org/diseases-conditions/uterinefibroids/basics/complications/con-20037901)

962. A 37-year old women presented to the doctor with intermittent bloody nipple discharge from the left breast. On examination there is no palpable mass. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Fibrocystic changes
- C. Intraductal papilloma
- D. Mastitis

Answer: C

Intraductal papilloma is seen in young women (20s–40s) with bloody nipple discharge. The classic presentation is intermittent bloody discharge from one nipple. Mammogram is needed to identify other potential lesions, but it will not show the papilloma (they are tiny). Galactogram or Ultrasound may be diagnostic and guide surgical resection. Ultrasound is best at detecting masses greater than 1 cm in diameter. However, any patient with a bloody nipple discharge is cancer until proven otherwise. Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

963. Humans are the natural hosts for *C. trachomatis*, which is widespread in the population and a well-known cause of STD. The organism is a well-documented cause of NGU in men and urethritis, cervicitis, and pelvic inflammatory disease in women. This organism is also implicated in which of the following?

- A. Blindness
- B. Middle ear infection in young children
- C. Perinatal retinitis
- D. Sexually transmitted cardiac disease in adults
- E. Urinary tract infection in children

Answer: A

Trachoma has been the greatest single cause of blindness in the world. Chlamydia trachomatis is the most common cause of STD in the United States and is also responsible for the majority of cases of infant conjunctivitis and infant pneumonia. Middle ear infection in children is most often caused by bacteria normally found in the oral cavity or upper respiratory system. Gram-positive cocci, Pseudomonas species, and a host of other normal flora can be involved. Trachoma involves the keratoconjunctiva area of the eye, not the retina. Sexually transmitted cardiac in adults and children's urinary tract infections are not reported to be caused by C. trachomatis.

964. A 41 year-old woman was seen in the Gynaecological Outpatient Clinic with excessive and offensive vaginal discharge. What organism is the most likely cause of her vaginal discharge?

- A. Chlamydia trachomatis
- B. Gonococcal infection
- C. Staphylococcus aureus
- D. Trichomonous vaginalis

Answer: D

1. Trichomoniasis is infection of the vagina or male genital tract with Trichomonas vaginalis (TV). 2. TV is a flagellated protozoan. It is a sexually transmitted infection which usually causes an offensive vaginal discharge. 3. It can be asymptomatic or cause urethritis, vaginitis, or occasionally cystitis, epididymitis, or prostatitis. 4. Diagnosis is by direct microscopic examination, dipstick tests, or nucleic acid amplification tests of vaginal secretions or by urine or urethral culture. 5. Patients and sex partners are treated with metronidazole or tinidazole.

965. Which of the following is true regarding group B Streptococcus (GBS) Screening?

- A. Screening occurs at 16-18 weeks
- B. Screening occurs at 25-30 weeks
- C. Screening occurs at 35-37 weeks
- D. Screening occurs at 5-10 weeks

Answer: C

1. Bacterial infections can affect pregnant women from implantation of the fertilized ovum through the time of delivery and peripartum period. They may also affect the fetus and newborn.

2. **Group B Streptococcus** (GBS; *Streptococcus agalactiae*) is the most common cause of life-threatening infections in newborns and can also affect the mother.

CDC recommendations

1. **At 35-37 weeks gestation**, all pregnant women should undergo screening with a vaginal and rectal swab for culture.

2. If the culture result is positive, the woman should be treated during labor

Treatment

1. During labor and until delivery, IV penicillin G or ampicillin

2. In penicillin-allergic patients at low risk for anaphylaxis, IV cefazolin; in those at high risk for anaphylaxis, IV clindamycin or erythromycin

3. The neonate must be carefully observed for signs and symptoms of disease

966. A 68-year-old female comes to the clinic with a plaque in labia majora, which is itching, easier bruising, cracking, tearing and peeling. After the biopsy the diagnosis was made - lichen sclerosis. Which of the following is the best next step in treatment for this woman?

- A. Surgical treatment
- B. Topical metronidazole
- C. Topical nystatin
- D. Topical steroids

Answer: D

Lichen sclerosus (LS) is a skin disease of unknown cause, commonly appearing as whitish patches on the genitals, which can affect any body part of any person but has a strong preference for the genitals (penis, vulva) and is also known as balanitis xerotica obliterans (BXO) when it affects the penis. Topically applied corticosteroids to the LS-affected skin are the first-line treatment for lichen sclerosus in women and men, with strong evidence showing that they are "safe and effective" when appropriately applied, even over long courses of treatment, rarely causing serious adverse effects. They improve or suppress all symptoms for some time, which highly varies across patients, until it is required to use them again. Methylprednisolone aceponate has been used as a safe and effective corticosteroid for mild and moderate cases. For severe cases, it has been theorized that mometasone furoate might be safer and more effective than clobetasol.

967. A mother of a 2-year-old girl reports that her daughter complains of burning when she urinates and that she has foul-smelling discharge from her vagina. She has noticed that there is some slight staining on the front of her underwear, but she reports no fever, nausea, vomiting, or other constitutional signs. The child does not attend day care, and she has demonstrated no change in behavior. The physical examination is normal with an intact hymen, but the child's vulva is reddened and with a malodorous scent noted. Her urinalysis and culture are normal. Which of the following is most likely diagnosis in this girl?

- A. Bacterial vaginosis
- B. Gonorrhea
- C. Nonspecific vulvovaginitis
- D. Trachomatis
- E. Trichomonas vaginalis

Answer: C

The symptoms listed are those of vulvovaginitis, with nonspecific (or chemical) vulvovaginitis accounting for 70% of all pediatric vulvovaginitis cases. The discharge in nonspecific vulvovaginitis is usually brown or green and with a fetid odor. The burning with urination occurs because of contact between raw skin and urine. Further history in this case might reveal use of tight-fitting clothing (including rubber pants), prolonged bubble baths with contamination of the vagina with soap products, use of perfumed lotions in the vaginal area, or improper toilet habits (wiping of fecal material toward rather than away from vagina). Attention to these causative conditions usually results in resolution of the symptoms. The finding of a normal hymen points away from sexual abuse. Pinworms can infest the vagina, but symptoms usually include significant itching of the rectum and vagina. Pediculosis pubis requires pubic hair and, thus, is usually not seen before adolescence. Giardiasis can result in vaginal discharge, but associated symptoms usually include diarrhea and malabsorption syndrome as well. In a sexually active adolescent (or in a sexually abused younger child) a variety of infectious agents such as candida, *Chlamydia trachomatis*, *Trichomonas vaginalis*, *Gardnerella vaginalis*, and *Neisseria gonorrhoea* would be higher on the differential.

968. A 22-year-old nulliparous woman has recently become sexually active. She consults you because of painful coitus, with the pain located at the vaginal introitus. It is accompanied by painful involuntary contraction of the pelvic muscles. Other than confirmation of these findings, the pelvic examination is normal. Which of the following is the most common cause of this condition?

- A. Bartholin gland abscess
- B. Endometriosis
- C. Psychogenic causes
- D. Vulvar atrophy

Answer: C

This patient presents with vaginismus, defined as involuntary painful spasm of the pelvic muscles and vaginal outlet. It is usually psychogenic. It should be differentiated from frigidity, which implies lack of sexual desire, and dyspareunia, which is defined as pelvic and/or back pain or other discomfort associated with sexual activity. Dyspareunia is frequently associated with pelvic pathology such as endometriosis, pelvic adhesions, or ovarian neoplasms. The pain of vaginismus may be psychogenic in origin, or may be caused by pelvic pathology such as adhesions, endometriosis, or leiomyomas. Treatment of vaginismus is primarily psychotherapeutic, as organic vulvar or pelvic causes (such as atrophy, Bartholin gland cyst, or abscess) are very rare.

969. A 29-year-old G3P2 presents to the emergency center with complaints of abdominal discomfort for 2 weeks. Her vital signs are: blood pressure 120/70 mm Hg, pulse 90 beats per minute, temperature 36.9°C, respiratory rate 18 breaths per minute. A pregnancy test is positive and an ultrasound of the abdomen and pelvis reveals a viable 16-week gestation located behind a normal-appearing uterus. Both ovaries appear normal. No free fluid is noted. Which of the following is the most likely cause of these findings?

- A. Ectopic ovarian tissue
- B. Fistula between the peritoneum and uterine cavity
- C. Primary peritoneal implantation of the fertilized ovum
- D. Tubal abortion

Answer: D

Almost all cases of abdominal pregnancy follow early rupture or abortion of a tubal pregnancy. Women with abdominal pregnancy are likely to be uncomfortable, but with vague gastrointestinal symptoms such as nausea, vomiting, flatulence, constipation, and diarrhea. Fetal survival is precarious with a perinatal loss of 75%. Fetal malformations and deformities, such as craniofacial asymmetry, limb deficiencies, and joint abnormalities, are present in 20% of fetuses. Expectant management carries the risk of sudden lifethreatening hemorrhage and is rarely if ever indicated if the diagnosis of abdominal pregnancy is made. Surgery is the usual treatment of abdominal pregnancy, but massive hemorrhage may ensue with separation and removal of the placenta. In general, the fetus should be delivered, the cord severed close to the placenta, and the abdomen closed. Leaving the placenta in situ can cause infectious abscess formation, adhesions, and intestinal obstruction. The use of methotrexate to hasten placental involution is controversial. Maternal mortality is increased substantively compared with normal pregnancy.

970. An obese, 25-year-old G1P0 comes to your office at 8 weeks gestational age for her first prenatal visit. She is delighted to be pregnant and wants to do whatever is necessary to ensure a healthy pregnancy. She is currently 5 ft 2 in tall and weighs 300 lb. She is concerned because she is overweight and wants you to help her with a strict exercise and diet regimen so that she can be healthier during the pregnancy. Which of the following is the best advice to give this patient regarding obesity and pregnancy?

- A. Marked obesity in pregnancy decreases the risk of developing diabetes, hypertension, and fetal macrosomia so she should try to lose weight during the pregnancy.
- B. She should gain at least 25 lb during the pregnancy because, although she is obese, nutritional deprivation can result in impaired fetal brain development and intrauterine fetal growth retardation.
- C. She should immediately initiate a vigorous exercise program to get in shape.
- D. She should lose weight during the pregnancy to limit the size of her baby since obesity places her at an increased risk of needing a cesarean section for fetal macrosomia.
- E. She should try not to gain weight because obese women still have adequate fetal growth in the absence of any weight gain during pregnancy.

Answer: E

Women who are markedly obese are at increased risk of developing complications during pregnancy. Obese women are more likely to develop diabetes and hyper-tension during pregnancy. In addition, these women are more likely to develop fetal macrosomia and undergo cesarean section for delivery. Morbidly obese women, who do not gain weight during pregnancy, are not at risk for having a fetus with growth abnormalities, and therefore they do not need to gain the 25 to 35 lb recommended for women of normal weight. Although it is not recommended that obese women gain weight during pregnancy, diet restriction and weight loss are to be avoided. In addition, as with all women, it is not recommended that obese women initiate a rigorous exercise program during pregnancy.

971. A couple presents to your office to discuss sterilization. They are very happy with their four children and do not want any more. You discuss with them the pros and cons of both female and male sterilization. The 34-year-old man undergoes a vasectomy. Which of the following is the most frequent immediate complication of this procedure?

- A. Hematoma
- B. Impotence
- C. Infection
- D. Sperm granulomas
- E. Spontaneous reanastomosis

Answer: A

Vasectomy is performed by isolating the vas deferens, cutting it, and closing the ends by either fulguration or ligation. Complications that may arise include hematoma in up to 5% of subjects, sperm granulomas (inflammatory responses to sperm leakage), spontaneous reanastomosis, and, rarely, infections. Sexual function following healing is rarely affected. Vasectomy in the male, however, should not be considered effective until an examination of the ejaculate is sperm-free on two successive occasions. Failure rate is 1%. It has a lower complication rate and cost than outpatient laparoscopic sterilizations in females.

972. A patient with endometriosis comes for a consultation. Which of the following is not a risk factor for developing this disease?

- A. Diabetes mellitus
- B. Early menarche
- C. Menstrual outflow obstruction
- D. Nulliparity

Answer: A

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Patients with endometriosis do not frequently have any physical examination findings beyond tenderness related to the site of involvement. 3. The most common finding is nonspecific pelvic tenderness. 4. Most commonly affects women age 25-35 with nulliparity or early menarche. Risk factors: 1. Nulliparity 2. Early menarche 3. Shorter menstrual cycles 4. Menstrual outflow obstruction. Clinical picture: 1. Dyspareunia 2. Dysmenorrhea 3. Pelvic pain 4. Infertility. Diagnosis: Laparoscopy is considered the primary diagnostic modality for endometriosis (gold standard). Treatment: 1. First-line therapy: Continuous oral progesterone or oral contraceptive pill (OCP). Progesterone inhibits endometrial growth. 2. Second-line therapy: Testosterone derivatives (Danocrine or danazol) or GnRH analogs (Lupron or leuprolide). Complications of endometriosis may include or fall into the following 3 categories: 1. Infertility/subfertility 2. Chronic pelvic pain and subsequent disability 3. Anatomic disruption of involved organ systems (eg, adhesions, ruptured cysts).

973. During pregnancy, a woman at 36 weeks of pregnancy has lost consciousness and appeared cramps. Her blood pressure is AT 180/100 mm.Hg. There is 3.33 g / l protein in the urine. The heartbeat of the fetus is not heeded. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Epilepticus status.
- C. Pre-eclampsia of moderate severity
- D. Preeclampsia of severe severity

Answer: A

Eclampsia is the onset of seizures (convulsions) in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there is high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery. Most often it is during the second half of pregnancy. The seizures are of the tonic-clonic type and typically last about a minute. Following the seizure there is typically either a period of confusion or coma.

Complications include aspiration pneumonia, cerebral hemorrhage, kidney failure, and cardiac arrest. Pre-eclampsia and eclampsia are part of a larger group of conditions known as hypertensive disorders of pregnancy.

974. Two new mothers are discussing their infants outside the neonatal intensive care unit. Both were born at 36 weeks' gestation. One infant weighs 2600 g (5 lb, 12 oz) while the other infant weighs 1600 g (3 lb, 8 oz). The mother of the second infant should be told that her child is more likely to have which of the following conditions?

- A. Congenital malformations
- B. Hyperglycemia
- C. Low hematocrit
- D. Surfactant deficiency

Answer: A

Small-for-dates infants are subject to a different set of complications than preterm infants whose size is appropriate for gestational age. The small-for-dates infants have a higher incidence of major congenital anomalies and are at increased risk for future growth retardation, especially if length and head circumference as well as weight are small for gestational age (SGA). Also more common are neonatal asphyxia and the meconium aspiration syndrome, which can lead to pneumothorax, pneumomediastinum, or pulmonary hemorrhage. These, rather than HMD, are the major pulmonary problems in small-for-gestational-age infants. Because neonatal symptomatic hypoglycemia is more commonly found in small-for-dates infants, careful blood glucose monitoring and early feeding are appropriate precautions. Normal or elevated hematocrit is also more common in these infants.

975. Amniocentesis is best done at what gestational age:

- A. 10 Weeks
- B. 11 Week
- C. 13 Week
- D. 15 Week

Answer: D

Amniocentesis (also referred to as amniotic fluid test or AFT) is a medical procedure used in prenatal diagnosis of chromosomal abnormalities and fetal infections, and also for sex determination, in which a small amount of amniotic fluid, which contains fetal tissues, is sampled from the amniotic sac surrounding a developing fetus, and then the fetal DNA is examined for genetic abnormalities. The most common reason to have an "amnio" is to determine whether a baby has certain genetic disorders or a chromosomal abnormality, such as Down syndrome. Amniocentesis (or another procedure, called chorionic villus sampling (CVS)) can diagnose these problems in the womb.

Amniocentesis is performed when a woman is between 14 and 16 weeks gestation.

976. Which of the following drugs is safe during pregnancy?

- A. Alcohol
- B. Isotretinoin (Accutane)
- C. Phenytoin (Dilantin)
- D. Progesterones
- E. Tetracycline

Answer: D

Progesterone is the one that is safe during pregnancy. Alcohol, Isotretinoin, Tetracyclines and Phenytoin (Dilantin) are teratogenic.

977. Which of the following is a marker for ovarian Sertoli-Leydig cell tumor?

- A. AFP
- B. Androgens
- C. CA-125
- D. LDH

Answer: B

Ovarian Tumour Markers:

Epithelial cell – CA-125.

Stromal/ Granulosa cell – inhibin.

Sertoli-Leydig – androgens.

Germ cell/Dysgerminoma – LDH.

Yolk sac – AFP.

Choriocarcinoma – hCG.

Immature Teratoma – none.

Embryonal cell – AFP + -hCG.

978. What is the most common injured organ during hysterectomy?

- A. Bladder
- B. Bowel
- C. Large vessels
- D. Ureter

Answer: A

Bladder: Damage to the bladder is the most common and often occurs during the dissection needed to complete a hysterectomy. If the bladder is damaged, it can often be repaired laparoscopically but you may need to go home with a catheter for 1-2 weeks while it heals.

Bowel: Damage to the bowel can happen at the start or during the surgery. If recognized during the surgery, the damage may be able to be repaired laparoscopically. Sometimes it requires an open incision to repair. Rarely, it could involve the need to remove parts of the damaged bowel. Almost never would damage be so severe to require a colostomy, although this is always possible.

Ureters: Injury to the ureter, which is the tube that connects the kidney to the bladder, occurs 0.5% of the time during a hysterectomy. The ureter can be burned, lacerated, or completely transected. You may need a stent and catheter placed, which will be removed as an outpatient. Rarely, you may need an abdominal surgery to fix the damage.

Large Vessels: The large blood vessels can be injured during surgery, and would require open surgery to repair.

979. A 32-year-old G1P0 woman reports to your office for a routine OB visit at 14 weeks gestational age. Labs drawn at her first prenatal visit 4 weeks ago revealed a platelet count of 60,000. All her other labs were within normal limits. During the present visit, the patient has a blood pressure of 120/70. Her urine dip reveals the presence of trace protein. The patient denies any complaints. The only medication she is currently taking is a prenatal vitamin. On taking a more in-depth history you learn that, prior to pregnancy, your patient had a history of the occasional nose and gum bleeds, but no serious bleeding episodes. She has considered herself to be a person who just bruises easily. Which of the following would be the best treatment for this woman?

- A. Intravenous immune globulin
- B. No treatment is necessary
- C. Oral corticosteroid therapy
- D. Splenectomy
- E. Stop prenatal vitamins

Answer: B

Immune thrombocytopenia (ITP) is a type of thrombocytopenic purpura defined as isolated low platelet count (thrombocytopenia) with normal bone marrow and the absence of other causes of thrombocytopenia. It causes a characteristic purpuric rash and an increased tendency to bleed. Two distinct clinical syndromes manifest as an acute condition in children and a chronic condition in adults. The acute form often follows an infection and has a spontaneous resolution within two months. Chronic immune thrombocytopenia persists longer than six months with a specific cause being unknown. With rare exceptions, there is usually no need to treat based on platelet counts. Many older recommendations suggested a certain platelet count threshold (usually somewhere below 20.0/ μ l) as an indication for hospitalization or treatment. Current guidelines recommend treatment only in cases of significant bleeding.

980. A 55-year-old G3P3 with a history of fibroids presents to you complaining of irregular vaginal bleeding. Until last month, she had not had a period in over 9 months. She thought she was in menopause, but because she started bleeding again last month she is not sure. Over the past month she has had irregular, spoty vaginal bleeding. The last time she bled was 1 week ago. She also complains of frequent hot flushes and emotional lability. She does not have any medical problems and is not taking any medications. She is a nonsmoker and denies any alcohol or drug use. Her gynecologic history is significant for cryotherapy of the cervix 10 years ago

for moderate dysplasia. She has had three cesarean sections and a tubal ligation. On physical examination, her uterus is 12 weeks in size and irregularly shaped. Her ovaries are not palpable. A urine pregnancy test is negative. Which of the following is the most reasonable next step in the evaluation of this patient?

- A. Arrange for outpatient endometrial ablation.
- B. Insert a progesterone-containing intrauterine device
- C. Perform an office endometrial biopsy.
- D. Schedule her for a hysterectomy.

Answer: C

Given this patient's age and symptoms, she is probably menopausal. Women with postmenopausal bleeding should be evaluated with an endometrial biopsy prior to any medical treatment or surgical intervention (such as hysterectomy or endometrial ablation). A pelvic ultrasound would also be helpful in the management of this patient and would offer information regarding the size and location of any uterine fibroids or polyps. There is no indication for conization of the cervix in this patient. Conization of the cervix is done for evaluation and treatment of cervical dysplasia. Progesterone-containing IUDs are used in premenopausal women for contraception and some physicians use them "off label" in the treatment of menorrhagia. There is no indication for inserting a progesterone-containing IUD in this patient.

981. What is the most important risk factors for endometrial carcinoma?

- A. Nulliparity
- B. Pregnancy
- C. Smoking
- D. Unopposed estrogen

Answer: D

Risk factors for endometrial carcinoma:

1. Unopposed estrogen or prolonged use of tamoxifen
2. Advancing age
3. Obesity
4. Nulliparity
5. Anovulatory conditions (eg, polycystic ovarian syndrome).

The most important risk factors for endometrial carcinoma are unopposed estrogen states.

982. The father of a 1-week-old infant comes to the office in a panic. He has just noticed on his child a right anterior shoulder mass that seems tender. The father is an osteosarcoma survivor and fears the child has the same malignancy. In reviewing the baby's discharge papers, you note the child was a term, appropriate-for-gestational-age vaginal delivery with a birth weight of 3200 g (7 lb, 1 oz). Apgar scores were 9 at 1 and 5 minutes. Your examination is significant for a large firm mass on the right clavicle; the rest of the examination is normal. Management of this problem should include which of the following?

- A. A biopsy of the mass for culture and cytology
- B. Magnetic resonance imaging of the right shoulder
- C. Reassurance and supportive care
- D. Referral to an orthopedic surgeon

Answer: C

The clavicle is the most commonly fractured bone in the delivery process. While some fractures are identified at birth by finding crepitus on physical examination of the shoulder, others may not be identified until callus formation is noted at about a week of age. Clavicular fracture may happen in any delivery, although there is higher risk with large-for-gestational-age infants. Initial presentation of a fractured clavicle may include a pseudoparalysis, in which the infant refuses to move the ipsilateral arm, mimicking an Erb-Duchenne paralysis.

983. Which of the following is the correct statement about metformin administration for women with polycystic ovarian syndrome?

- A. Increase the insulin secretion
- B. Reduces insulin resistance
- C. Supply cells with glucose
- D. Synthetic insulin

Answer: B

Metformin is a drug commonly used in type 2 diabetes to reduce insulin resistance, and is used off label to treat insulin resistance seen in PCOS. In many cases, metformin also supports ovarian function and return to normal ovulation.

984. A 24-year-old primigravid woman at 28 weeks of gestation has had nagging headaches, a puffy-looking face, and swollen legs for the past week. Her blood pressure is 180/95 mm Hg; it was within normal limits earlier in the pregnancy. Urinalysis shows a protein concentration of 0.6 g/dL. Which of the following is the most likely diagnosis ?

- A. Acute glomerulonephritis
- B. Congestive heart failure
- C. Eclampsia
- D. Nephrotic syndrome
- E. Preeclampsia

Answer: E

This patient most likely has preeclampsia. Preeclampsia is new-onset hypertension (systolic BP \geq 140 mm Hg or diastolic BP \geq 90 mm Hg) and proteinuria ($>$ 300 mg of protein in a 24-hour period) occurring at $>$ 20 weeks' gestational age. Eclampsia is new-onset grand mal seizures in women with preeclampsia.

985. A 27-year-old G4P3 at 37 weeks presents to the hospital with heavy vaginal bleeding and painful uterine contractions. Quick bedside ultrasound reveals a fundal placenta. The patient's vital signs are blood pressure 140/92 mm Hg, pulse 118 beats per minute, respiratory rate 20 breaths per minute, and temperature 37°C (98.6°F). The fetal heart rate tracing reveals tachycardia with decreased variability and a few late decelerations. An emergency cesarean section delivers a male infant with Apgar scores of 4 and 9. With delivery of the placenta, a large retroplacental clot is noted. The patient becomes hypotensive, and bleeding is noted from the wound edges and her IV catheter sites. Which of the following blood products will most quickly resolve her cause of hemorrhage?

- A. Cryoprecipitate
- B. Fresh frozen plasma
- C. Packed red blood cells
- D. Platelets

Answer: B

This patient has a large placental abruption which is the most common cause of consumptive coagulopathy in pregnancy. The bleeding described signifies that the patient has a significant coagulopathy with hypofibrinogenemia. Prompt and vigorous transfusion is needed. Packed red blood cells will restore blood volume and increase oxygen carrying capacity. Fresh frozen plasma (FFP) contains about 600-700 mg of fibrinogen and will promote clotting. Cryoprecipitate contains clotting factors and fibrinogen but in much less amount (200 mg) than FFP and has no advantage over the use of FFP in this bleeding patient. Recombinant factor VII can be used for the treatment of severe obstetrical hemorrhage but will not be effective if fibrinogen is low. Platelet transfusion is considered in bleeding patients with platelets less than 50,000.

986. A patient presents for her first initial OB visit after having a positive home pregnancy test. She reports a last menstrual period of about 8 weeks ago. She says she is not entirely sure of her dates, however, because she has a long history of irregular menses. Her urine pregnancy test in your office is positive. Which of the following is the most accurate way of dating this patient's pregnancy?

- A. Crown-rump length on abdominal or vaginal ultrasound
- B. Determination of progesterone level along with serum HCG level
- C. Determination of uterine size on pelvic examination
- D. Quantitative serum human chorionic gonadotropin (HCG) level

Answer: A

Measurement of the fetal crown-rump length is the most accurate means of estimating gestational age. In the first trimester, this ultrasound measurement is accurate to within 3 to 5 days. Estimating the uterine size on physical examination can result in an error of 1 to 2 weeks in the first trimester. Quantification of serum HCG cannot be used to determine gestational age, because at any gestational age the HCG number can vary widely in normal pregnancies. A single serum progesterone level cannot be used to date a pregnancy; however, it can be used to establish that an early pregnancy is developing normally. Serum progesterone levels less than 5 ng/mL usually indicate a nonviable pregnancy, while levels greater than 25 ng/mL indicate a normal intrauterine pregnancy. Progesterone levels in conjunction with quantitative HCG levels are often used to determine the presence of an ectopic pregnancy.

987. A 54-year-old female comes with complaints of hot flashing and profuse night sweating that lasts for ten minutes. These episodes are happening repetitively throughout the day and disturb her sleep at night. Which of the following is most likely the cause of her symptoms?

- A. Estrogen
- B. FSH
- C. Progenstron
- D. TSH

Answer: A

Traditionally, the most effective treatment for hot flashes has been estrogen supplementation. It's often referred to as hormone replacement therapy (HRT). Estrogen may be taken alone or in combination with progesterone. Women who've had a hysterectomy may be able to safely take estrogen alone, while all other women using HRT should take estrogen and progesterone together. Estrogen isn't recommended for everyone, especially women with a history of breast cancer, blood clots, or certain other medical conditions. Also, estrogen is believed to increase the risk of future health problems, including heart disease, breast cancer, and blood clots.

988. A 21-year-old woman comes to the clinic because she has found herself fatigue and sleepy. She noticed that certain foods and odors can not only be more enticing but in some cases more offensive. Also every morning she has morning sickness with nausea and vomiting. Which of the following would be the best next step to confirm the diagnosis?

- A. Estrogen
- B. Progesteron
- C. Prolactin
- D. bHCG

Answer: D

This woman most likely is pregnant based on the symptoms of food craving, morning sickness, and sleepy feeling. The best next step to confirm the diagnosis is urinary b-hCG.

989. A 32-year-old G1 at 39 weeks gestation is admitted in labor at 4 cm dilated and completely effaced; the fetal head is at 0 station. You perform clinical pelvimetry and find the following: the diagonal conjugate is 10 cm, the interischial spine distance is 11 cm with non convergent side walls, and the intertuberous distance is 9 cm. Those measurements describe which of the following types of pelvis?

- A. Contracted midpelvis
- B. Contracted pelvic inlet
- C. Contracted pelvic outlet
- D. Normal pelvis

Answer: B

The pelvic inlet is considered contracted if the anteroposterior diameter is less than 10 cm. The inlet is digitally measured by the diagonal conjugate which is typically 1.5 cm greater than the inlet, therefore a pelvic inlet contraction is defined as a diagonal conjugate less than 11.5 cm. The midpelvis extends from the inferior margin of the symphysis to the ischial spines bilaterally to the sacrum near the junction of the fourth and fifth vertebrae. The average mid-pelvis measurements include: interischial spinous 10.5 cm, anteroposterior from symphysis to sacrum 11.5 cm and posterior sagittal from midpoint of interspinous line to sacrum 5 cm. But there is no precise manual measurement of the midpelvis but contraction is suggested if the spines are prominent, the pelvic sidewalls converge or if the sacrospinous notch is narrow. The contracted outlet is defined as a intertuberous diameter of 8 cm or less. Outlet contraction without concomitant midpelvis contraction is rare. A generally contracted pelvis is caused by combinations of contractions in the inlet, midpelvis, and outlet.

990. A 28-year-old G1P0 presents to your office at 18 weeks gestational age for an unscheduled visit secondary to right-sided groin pain. She describes the pain as sharp and occurring with movement and exercise. She denies any change in urinary or bowel habits. She also denies any fever or chills. The application of a heating pad helps alleviate the discomfort. As her obstetrician, what do you tell this patient is the most likely etiology of this pain?

- A. Appendicitis
- B. Kidney stone
- C. Preterm labor
- D. Round ligament pain
- E. Urinary tract infection

Answer: D

Round ligament pain is pain associated with the round ligament of the uterus, usually during pregnancy. RLP is one of the most common discomforts of pregnancy and usually starts at the second trimester of gestation and continues until delivery. It usually resolves completely after delivery although cases of postpartum RLP (that is, RLP that persisted for a few days after delivery) have been reported. RLP also occurs in nonpregnant women. The round ligament of the uterus goes from the pelvis, passes through the internal abdominal ring, and runs along the inguinal canal to the labia majora. It is the structure that holds the uterus suspended inside the abdominal cavity.

991. Which of the following is the most common cause of secondary amenorrhea?

- A. Cushing syndrome
- B. Hypothyroidism
- C. Polycystic Ovary Syndrome
- D. Pregnancy

Answer: D

1. **Amenorrhea** (absence of menses) can be a transient, intermittent, or permanent condition resulting from dysfunction of the hypothalamus, pituitary, ovaries, uterus, or vagina.

2. It is often classified as either **primary** (absence of menarche by age 15 years) or **secondary** (absence of menses for more than three cycles or six months in women who previously had menses).

3. Most common cause of primary amenorrhea: Ovarian, followed by uterine.

4. **Pregnancy is the most common cause of secondary amenorrhea.**

5. Most common cause of postpartum amenorrhea: **Lactation.**

The most common causes of secondary amenorrhea are disorders of the:

- 1. Ovary 40%
- 2. Hypothalamus 35%
- 3. Pituitary 19%
- 4. Uterus 5%

992. Which of the following is the most common cause of postpartum hemorrhage?

- A. Bleeding disorders
- B. Hematoma
- C. Uterine atony
- D. Uterine rupture

Answer: C

Postpartum hemorrhage is blood loss of > 500 mL during or immediately after the 3rd stage of labor in a vaginal delivery or > 1000 mL in a cesarean delivery.

Causes of postpartum hemorrhage include:

1. Uterine atony (The most common cause of postpartum hemorrhage)
2. Lacerations of the genital tract
3. Extension of an episiotomy
4. Uterine rupture
5. Bleeding disorders
6. Retained placental tissues
7. Hematoma
8. Uterine inversion
9. Chorioamnionitis

Treatment depends on etiology of the hemorrhage.

993. A 56-year-old woman in Uganda presents to an emergency clinic. The woman is homeless and extremely dirty. She is also very dehydrated and the duty nurse notices lice in her hair and clothing. The patient reported high fever, severe headaches, and muscle pain. A petechial rash was observed all over her body. After 72 hours in the hospital, the woman died. A Gram-stain of the organism showed a weakly staining Gram-negative bacterium that could not be grown in vitro. What organism was the most likely cause of her infection?

- A. *Chlamydia trachomatis*
- B. *Coxiella burnetii*
- C. *Rickettsia prowazekii*
- D. *Rickettsia rickettsii*
- E. *Rickettsia typhi*

Answer: C

The source of the woman's infection is *Rickettsia prowazekii*. Her disease is louse-borne typhus. Louse-borne typhus is a disease with a mortality of approximately 30%. *Chlamydia trachomatis* is obviously incorrect because the woman does not have trachoma, which is primarily a disease of the eye or genital tract. *Coxiella burnetii* is incorrect because this organism causes Q fever, which is primarily a disease presenting with nonspecific flu-like symptoms. *Rickettsia rickettsii* causes Rocky Mountain spotted fever, which is the most common *Rickettsia* disease in the United States, but is spread by ticks. *Rickettsia typhi* causes endemic typhus or murine typhus and is spread by fleas. Therefore, it is important to know the arthropod vectors that spread *Rickettsia* diseases to be able to tell them apart.

994. A 25-year-old G2P0 at 30 weeks gestation presents with the complaint of a new rash and itching on her abdomen over the last few weeks. She denies any constitutional symptoms or any new lotions, soaps, or detergents. On examination she is afebrile with a small, papular rash on her trunk and forearms. Excoriations from scratching are also noted. Which of the following is the recommended first-line treatment for this patient?

- A. Cholestyramine
- B. Delivery
- C. Oral steroids
- D. Topical steroids and oral antihistamines

Answer: D

The first-line treatment for prurigo gestationis and papular dermatitis is oral antihistamines and topical corticosteroids. If these treatments do not give relief, oral steroids should be administered. The rash will resolve quickly following delivery, but delivery would not be the first-line treatment. Cholestyramine is often used in cases of cholestasis of pregnancy to lower serum bile salts and decrease pruritus. There is no role for antibiotic therapy in the treatment since no bacterial etiology has been identified.

995. Which of the following is the most common way of HIV transmission from the mother to the fetus/child?

- A. Breastfeeding

- B. Oral
- C. Placenta
- D. Umbilical cord blood contamination

Answer: C

Explanation: Exposure through pregnancy, birth, or breastfeeding – Vertical transmission of HIV can occur at any time during gestation and delivery, and through breast milk in the postpartum period. More than 95 percent of HIV-infected children worldwide have acquired the virus via vertical transmission. The rate of vertical transmission of HIV varies from approximately 20 to 30 percent in the absence of antiretroviral therapy. Although it is known that HIV can be transmitted early in gestation in utero, most transmissions (50 to 80 percent) are believed to occur during the time period near or during delivery .reference: uptodate

996. A 26-year-old woman complains of having bloody discharges from the genitals for the last 14 days, abdominal pain, general fatiguability, weakness, weight loss, body temperature rise, chest pain, obstructed respiration. 5 weeks ago she underwent induced abortion in the 6-7 week of gestation. Objectively: the patient is pale and inert. Bimanual examination revealed that the uterus was enlarges up to 8-9 weeks of gestation. In blood: Hb- 72 g/l. Urine test for chorionic gonadotropin gave the positive result. What is the most likely diagnosis?

- A. Choriocarcinoma
- B. Metroendometritis
- C. Uterine carcinoma
- D. Uterine fibromyoma

Answer: A

Choriocarcinoma is a malignant, trophoblastic cancer, usually of the placenta. It is characterized by "early hematogenous spread" to the lungs. It belongs to the malignant end of the spectrum in gestational trophoblastic disease (GTD). It is also classified as a germ cell tumor and may arise in the testis or ovary. increased quantitative chorionic gonadotropin (the "pregnancy hormone") levels vaginal bleeding shortness of breath hemoptysis (coughing up blood) chest pain chest X-ray shows multiple infiltrates of various shapes in both lungs presents in males as a testicular cancer, sometimes with skin hyperpigmentation (from excess chorionic gonadotropin cross reacting with the alpha MSH receptor), gynecomastia, and weight loss (from excess chorionic gonadotropin cross reacting with the LH, FSH, and TSH receptor) in males can present with decreased thyroid-stimulating hormone (TSH) due to hyperthyroidism.

997. A 17-year-old girl born her baby in the home with help of her friend. During the labor, there was damaged the muscle. Which of the following is the most common muscle which is damaged during the labor?

- A. Bulbospongiosus
- B. Ischiocavernosus
- C. Pubococcygeus
- D. Superficial transverse perineal

Answer: C

The pubococcygeus is the major component of the levator ani muscle, is the muscle most often torn during childbirth. The pelvic diaphragm supports the fetal head during delivery. The pubococcygeus plays a key mechanical role in that it encircles the urethra, vagina, and anal canal and provides the main support for these organs during birthing. However, because of its proximity to the vagina, it also is subject to tearing if the perineum ruptures. Subsequent weakening of the muscle and associated pelvic fascia may cause changes in the positioning of the bladder and urethra leading to urinary incontinence.

998. A 48-year-old woman consults you regarding menopausal symptoms. Her periods have become less regular over the past 6 months. Her last period was 1 month ago. She started having hot flushes last year. They have been getting progressively more frequent. She has several hot flushes

during the day, and she wakes up twice at night with them as well. She has done quite a lot of reading about perimenopause, menopause, and hormone replacement therapy. She is concerned about the risks of taking female hormones. She wants to know what she should expect in regard to her hot flashes if she does not take hormone replacement. You should tell her which of the following?

- A. Hot flashes are normal and rarely interfere with a woman's well-being.
- B. Hot flashes can begin several years before actual menopause.
- C. Hot flashes usually resolve spontaneously within 1 year of the last menstrual period.
- D. Hot flashes usually resolve within 1 week after the initiation of HRT.

Answer: B

The hot flush is the first physical symptom of declining ovarian function. More than 95% of perimenopausal/ menopausal women experience these vasomotor symptoms. Hot flashes may begin several years before the cessation of menstruation. When a woman experiences a hot flush, she typically feels a sudden sensation of heat over the chest and face that lasts between 1 and 2 minutes. This feeling of heat is followed by a sensation of cooling or a cold sweat. The entire hot flush lasts about 3 minutes total. Estrogen therapy will usually cause resolution of the hot flush within 3 to 6 weeks. Without estrogen therapy, hot flashes on average resolve spontaneously within 2 to 3 years after cessation of menstruation. Although hot flashes are normal, they may interfere with a woman's sleep, causing significant interference with her sense of well-being.

999. You are called in to evaluate the heart of a 19-year-old primigravida at term. Listening carefully to the heart, you determine that there is a split S1, normal S2, S3 easily audible with a 2/6 systolic ejection murmur greater during inspiration, and a soft diastolic murmur. You immediately recognize which of the following?

- A. All findings recorded are normal changes in pregnancy.
- B. Diastolic murmurs are rare in pregnant women.
- C. The presence of the S3 is abnormal.
- D. The systolic ejection murmur is unusual in a pregnant woman at term.

Answer: A

Numerous changes occur in the cardiovascular system during pregnancy. Heart rate increases by about 10 to 15 beats per minute. Blood volume and cardiac output increase significantly. All the findings listed in the question are normal. An exaggerated splitting for the first heart sound occurs with increased loudness of both components. Also a loud third heart sound can be easily heard. Ninety percent of pregnant women have systolic ejection murmurs. In approximately 20% of women, a soft diastolic murmur can be heard. Ten percent of women may have a continuous murmur arising from the breast vasculature.

1000. A 90-year-old G5P5 with multiple medical problems is brought into your gynecology clinic accompanied by her granddaughter. The patient has hypertension, chronic anemia, coronary artery disease, and osteoporosis. She is mentally alert and oriented and lives in an assisted living facility. She takes numerous medications, but is very functional at the current time. She is a widow and not sexually active. Her chief complaint is a sensation of heaviness and pressure in the vagina. She denies any significant urinary or bowel problems. On performance of a physical examination, you note that the cervix is just inside the level of the introitus. Based on the physical examination, which of the following is the most likely diagnosis?

- A. First-degree uterine prolapse
- B. Normal examination
- C. Second-degree uterine prolapse
- D. Third-degree uterine prolapse

Answer: C

The degree or severity of pelvic relaxation is rated on a scale of 1 to 3, based on the descent of the organ or structure involved. First-degree prolapse involves descent limited to the upper two-thirds of the vagina. Second-degree prolapse is present when the structure is at the vaginal introitus. In cases of third-degree prolapse, the structure is outside the vagina. Total procidentia of the uterus is the same as a third-degree prolapse, which means that the uterus would be located outside the body.

1001. A 32 weeks gestation, Para 2+0 woman, attended the emergency Department complaining of lower abdominal and back pain that has increased in its frequency and intensity over the last few hours. Abdominal

examination confirmed symphysis-fundal height equal to 32 cm with longitudinal lie fetus and cephalic presentation. Fetal heart was positive and cardiotocography was reactive with 2-3 uterine contractions per 10 minutes. Vaginal examination confirmed 1 cm dilated cervix and 2 cm long, presenting part was cephalic at -3 station. Which of the following would be the best next step for this woman?

- A. Inform neonatologist, give corticosteroids and strict bed rest
- B. Inform neonatologist, give intravenous antibiotics and strict bed rest
- C. Inform neonatologist, give tocolytics and corticosteroids
- D. Inform neonatologist, start intravenous antibiotics and hydrate the patient

Answer: C

This woman most likely has preterm labor. The best next step for this woman will be - inform neonatologist and give tocolytics and corticosteroids which would help to induce maturity of the fetal lungs.

1002. A 50-year-old woman comes to the office with complaints of mild dysuria and increased urinary frequency. She is afebrile. The physical examination is negative for costovertebral angle tenderness. Pelvic examination is notable for a dry vagina. Which of the following would be the best next step for this woman?

- A. Bonney's test
- B. Cystourethrogram
- C. Manometry
- D. Urinalysis and culture

Answer: D

This patient most likely has urinary tract infection. The best next step to confirm or exclude the diagnosis is urinalysis and culture. Urinalysis and culture is the cheapest noninvasive method.

1003. Which of the following is the most important to reduce the risk of uterine fibroid?

- A. Higher parity
- B. Hypertension
- C. Smoking
- D. oral contraceptive pills

Answer: A

African race is associated with a two- to threefold increased risk. Age is associated with a 10-fold increased risk when those aged 40 years and over or 50 years and over are compared with those aged 20-30 years. Family history is associated with a threefold increased risk. Time since last birth is associated with a two- to threefold increase among those who gave birth more than 5 years ago. Higher parity is associated with a reduced risk (80% risk reduction when those with three or more deliveries are compared with nulliparous women). Uterine fibroids are more common among premenopausal women (three to five times higher risk than in postmenopausal women). Smoking lowers the risk when the BMI is under 22.2 kg/m² (by one third compared with same-weight nonsmokers) Current use of oral or injectable contraception is associated with a two thirds reduced risk. Women with hypertension are more likely to be diagnosed with fibroids (fivefold increase). The intake of food additives and soybean increases the risk (soybean is associated with 2.5-fold increased risk).

1004. Latent infection of neurons occurs with which of the following viruses?

- A. Adenovirus
- B. Epstein–Barr virus
- C. HSV
- D. Measles virus
- E. Rabies virus

Answer: C

A latent infection is usually manifested by persistence of viral genomes, expression of none or a few viral genes, and survival of the infected cells. Reactivation with shedding of infectious virions may occur sporadically or not at all, usually dependent on immune competence. HSV (b) becomes latent in neurons. Adenovirus (a) can form latent infection of lymphoid tissue (tonsils, adenoids, Peyer patches). Epstein–Barr virus (c) becomes latent in B cells in the presence of immunocompetent T cells. All three viruses can be reactivated by loss of immunocompetence, infection with another agent, and other triggers, depending on the virus. Measles virus (d) can develop defective mutants, which cause persistent infection of the brain resulting in SSPE approximately 10 years after primary measles. Rabies virus (e) has a long incubation time with the virus replicating slowly in muscle cells and then peripheral nerves at the site of entry for 60 to 365 days after the bite. These latter two infections are persistently replicative rather than latent.

1005. A 54-year-old woman presents for well-woman examination. On pelvic examination you palpate an enlarged, tender right adnexal mass. You order a pelvic ultrasound as the next step in this patient's evaluation. Which of the following sonographic characteristics of the cyst in this patient would warrant further evaluation for possible ovarian malignancy?

- A. An ovarian cyst with a diameter of 4 cm
- B. Lack of pelvic ascites
- C. Papillary vegetations within a cystic ovary
- D. The presence of a unilocular cyst in one ovary

Answer: C

Most ovarian malignancies are not found until significant spread has occurred; therefore it is not unreasonable to further evaluate patients as soon as there is a suspicion of an ovarian neoplasm. Pelvic ultrasonography, tumor markers and even surgical exploration may be part of the evaluation of a patient with an ovarian mass. Pelvic ultrasound findings of internal ovarian papillary vegetations, ovarian size greater than 10 cm, the presence of ascites, possible ovarian torsion, or solid ovarian lesions are indications for exploratory laparotomy in the postmenopausal patient. In a younger woman, a cyst can be followed past one menstrual cycle to determine if it is a follicular cyst, since a follicular cyst should regress after onset of the next menstrual period. If regression does not occur, then surgery is appropriate. Doppler ultrasound imaging allows visualization of arterial and venous flow patterns superimposed on the image of the structure being examined; arterial and venous flow are expected in a normal ovary.

1006. A 35-year-old man comes to your clinic for a physical examination. He tells you that over one year ago, he noticed a lesion on his penis which went away after several weeks. A month later, he noticed a rash appearing on his palms and soles, which lasted several weeks and also resolved on its own. The physical exam is unremarkable and shows no evidence of any rash. VDRL and FTA-ABS are both positive. Which of the following is the most likely diagnosis?

- A. Latent syphilis
- B. Primary syphilis
- C. Secondary syphilis
- D. Tertiary syphilis

Answer: C

Syphilis1. Syphilis occurs in primary, secondary, and tertiary stages (Infected people are contagious during the first 2 stages.)2. Infection is usually transmitted by sexual contact (including genital, orogenital, and anogenital) but may be transmitted non-sexually by skin contact or transplacentally.3. Syphilis may manifest at any stage and may affect multiple or single organs, mimicking many other disorders. 4. Syphilis may be accelerated by coexisting HIV infection; in these cases, eye involvement, meningitis, and other neurologic complications are more common and more severe. Primary syphilis1. After an incubation period of 3 to 4 wk (range 1 to 13 wk), a primary lesion (chancre) develops at the site of inoculation. 2. The initial red papule quickly forms a chancre, usually a painless ulcer with a firm base; when rubbed, it produces clear fluid containing numerous spirochetes. Nearby lymph nodes may be enlarged, firm, and non-tender.3. The chancre usually heals in 3 to 12 weeks.4. In primary stage of syphilis, serologic testing is not reliable and includes a high rate of false-negatives, so diagnosis is made via spirochete identification on dark field microscopy. 5. A single dose of intramuscular benzathine penicillin G is the treatment of choice for primary syphilis. In non-pregnant patients with penicillin allergy, a 2-week course of doxycycline can be used. Stage Clinical manifestations Primary syphilis Painless genital ulcer (chancre) Secondary syphilis Lymphadenopathy, Condyloma lata and oral lesions Latent syphilis Asymptomatic Tertiary syphilis CNS andÂCardiovascular involvementÂ

1007. A patient with painless genital ulcer comes to the clinic. Which of the following is the most specific diagnostic procedure?

- A. Dark field microscopy
- B. FTA-ABS
- C. Jarisch-Herxheimer reaction
- D. VDRL/RPR

Answer: A

The patient is most likely has primary syphilis because of painless genital ulcer. The most specific test for primary syphilis is dark field microscopy, which identifies motile spirochetes.

1008. A woman comes for the medical consultation. She doesn't have any MMR vaccine. She is breastfeeding and asks for MMR vaccine, Which of the following is the best recommendation for this woman?

- A. Continue breastfeeding and give vaccine
- B. Stop breastfeeding and give vaccine
- C. There is no need to give vaccine
- D. This vaccine is contraindicated for her

Answer: A

As with all live virus vaccines, women known to be pregnant should not receive the MMR vaccine, and pregnancy should be avoided for four weeks following vaccination with MMR. Children and other household contacts of pregnant women should be vaccinated according to the recommended schedule. Women who are breast-feeding can be vaccinated.

1009. A woman about 40-years-old had polycystic ovary syndrome since she was young. Now she has vaginal bleeding. Which of the following is the most likely diagnosis?

- A. Endometrial cancer
- B. Ovarian cancer
- C. Sarcoma
- D. Vaginal cancer

Answer: A

A diagnosis of PCOS suggests an increased risk of endometrial hyperplasia and endometrial cancer, due to overaccumulation of uterine lining, and also lack of progesterone resulting in prolonged stimulation of uterine cells by estrogen. It is not clear whether this risk is directly due to the syndrome or from the associated obesity, hyperinsulinemia, and hyperandrogenism.

1010. A 20-year-old patient G2P1 comes to see you at 17 weeks gestational age to review the results of her maternal multiple serum marker test done 1 week ago. You tell the patient that her maternal serum alpha-fetoprotein level is 2.0 MOM. Which of the following is the correct advice for your patient regarding how to proceed next?

- A. Explain to the patient that the results of her test are diagnostic of a neural tube defect.
- B. Offer the patient immediate CVS to obtain a fetal karyotype.
- C. Refer the patient for an ultrasound to confirm dates.
- D. Tell the patient that the blood test result is most likely a false-positive result and she should repeat the test at 20 weeks.

Answer: C

The multiple marker screening test, also referred to as the expanded AFP test or quad screen, consists of maternal serum measurements of estriol, human chorionic gonadotropin, inhibin-A and AFP. The multiple marker screening test is used to determine a pregnant patient's risk of having a baby with aneuploidy and a neural tube defect. The AFP test has the greatest sensitivity when done between 16 and 18 weeks. An MSAFP level that is greater than or equal to 2.0 to 2.5 MOM indicates an elevated risk for a neural tube defect and indicates that further workup and evaluation are needed. The first step when an elevated serum AFP result is obtained is to have the patient undergo an ultrasound to verify that the gestational age of the pregnancy is correct. The sonogram can also identify a fetal death in utero, multiple gestation, or a neural tube or abdominal defect, which could all explain the elevated AFP level. A repeat serum AFP test can be done, because at a level of 2.0 MOM there is some overlap between normal and affected pregnancies. The repeat test should be done as soon as possible; waiting until 20 weeks decreases the sensitivity of the test and wastes valuable time in the workup. An amniocentesis is recommended if a neural tube defect is suspected in order to measure amniotic fluid levels of AFP and therefore confirm the findings of the MSAFP. The physician would not immediately refer the patient for a CVS because this procedure obtains placental tissue for fetal karyotyping and does not add to information regarding the presence of a neural tube defect. A cordocentesis, or percutaneous umbilical cord blood sampling (PUBS), is a procedure whereby blood from the umbilical vein is obtained under ultrasonic guidance. Usually a PUBS is performed when rapid fetal karyotyping must be done, such as in a situation where severe growth restriction exists. PUBS is most commonly used in situations where fetal hydrops exists to obtain information regarding fetal platelet count and fetal hematocrit.

1011. A 42-year-old obese woman who does not smoke comes with complaints of unable to conceive. Physical exam shows a full, plethoric appearing face, increased facial hair, truncal obesity, and purple striae

around the abdomen with scattered ecchymosis over the entire body. Her blood pressure is 160/100mmHg. Her laboratory findings show hypokalemia. Which of the following is most likely diagnosis in this woman?

- A. Addison disease
- B. Cushing syndrome
- C. Gaves disease
- D. Raynaud syndrome

Answer: B

Cushing's syndrome is a collection of signs and symptoms due to prolonged exposure to cortisol. Signs and symptoms may include high blood pressure, abdominal obesity but with thin arms and legs, reddish stretch marks, a round red face, a fat lump between the shoulders, weak muscles, weak bones, acne, and fragile skin that heals poorly. Women may have more hair and irregular menstruation. Occasionally there may be changes in mood, headaches, and a chronic feeling of tiredness.

1012. Which of the following is administered to patients with preeclampsia to prevent seizures?

- A. Labetalol
- B. Lorazepam
- C. Magnesium sulfate
- D. Phenytoin

Answer: C

1. **Preeclampsia** refers to the new onset of hypertension and proteinuria after 20 weeks of gestation in a previously normotensive woman.
2. **Eclampsia** refers to the development of grand mal seizures in a woman with preeclampsia, in the absence of other neurologic conditions that could account for the seizure.
3. The basic principles of **airway, breathing, and circulation (ABC)** should always be followed as a general principle of seizure management.
4. **Magnesium sulfate is the first-line treatment** for the prevention of primary and recurrent eclamptic seizures.
5. For eclamptic seizures that are refractory to magnesium sulfate, **lorazepam** and **phenytoin** may be used as **second-line agents**.

1013. A woman has polycystic ovary syndrome. She and her husband have an unprotected sexual intercourse for 1,5 year without success. Which of the following is the treatment of choice for an infertile woman with polycystic ovary syndrome?

- A. Clomiphene citrate
- B. Metformin
- C. Oral contraceptive pills
- D. Spironolactone

Answer: A

1. Polycystic ovary syndrome (PCOS) is the most common cause of infertility in women. 2. The clinical triad of polycystic ovarian disease (PCOD) is amenorrhea, hirsutism and obesity. 3. It is characterized by anovulation, signs of androgen excess and ovarian cysts. 4. Examinations usually reveals hirsutism, obesity, male pattern baldness and increased acne. 5. Clomiphene citrate or human menopausal gonadotropin (HMG) is the treatment of choice for infertility. 6. Metformin is indicated in polycystic ovarian syndrome patients with impaired glucose tolerance. It helps in preventing type 2 diabetes mellitus.

1014. You are counseling a 24-year-old woman who is a G2P1 at 36 weeks gestation. She delivered her first baby at 41 weeks gestation by cesarean section as a result of fetal distress that occurred during an induction of labor for mild preeclampsia. She would like to know if she can have a trial of labor with this pregnancy. Which of the following is the best response to this patient?

- A. No, because once she has had a cesarean section she must deliver all of her subsequent children by cesarean section.
- B. No, since she has never had a vaginal delivery.
- C. Yes, but only if her uterine incision was made above the lower uterine segment.
- D. Yes, but only if she had a low transverse cesarean section.

Answer: D

Guidelines from the American College of Obstetricians and Gynecologists for vaginal birth after cesarean delivery (VBAC) state that a patient with a prior low transverse cesarean section may attempt a vaginal delivery following informed consent to the risks involved. A low transverse incision is cut transversely through the lower uterine segment, which does not actively contract during labor. A classical incision is made vertically on the uterus above the lower uterine segment through the myometrium, which actively contracts during labor. A prior classical incision on the uterus is a contraindication to a trial of labor because of a higher risk of uterine rupture. The risk of uterine rupture with a prior classical incision is 4% to 9% versus 0.2% to 1.5% with a prior low transverse incision. Although a prior vaginal delivery increases the success rate for a successful VBAC, a prior vaginal birth is not a prerequisite for a VBAC attempt.

1015. Which of the following is the daily requirement of elemental iron during pregnancy?

- A. 1-2 g/day
- B. 100-200 ng/day
- C. 15-45 pg/day
- D. 30-60 mg/day

Answer: D

14.7 mg/day (requirement of iron)with 30 mg to 60 mg of elemental iron (dose)
http://www.who.int/elena/titles/guidance_summaries/daily_iron_pregnancy/

1016. A pregnant woman has fibroid. Which of the following is true?

- A. It usually presented with antepartum hemorrhage
- B. It usually presented with severe anemia
- C. Most likely fibroid regresses after delivery
- D. Surgical treatment should be done immediately

Answer: C

Fibroids may also be the result of hormones. Reproductive hormones like estrogen and progesterone can stimulate cell growth, causing fibroids to form. During pregnancy, your influx of hormones may cause your fibroids to grow in size. After pregnancy and during menopause most fibroids begin to shrink, due to a lack of hormones.

1017. A 64-year-old woman presents with vaginal bleeding similar to “spotting” that has occurred daily for 1 mo. Her last menses was at age 50 and she has been healthy her entire life. She denies fever, weight loss, or abdominal pain. Physical examination is normal. Which of the following is the most likely diagnosis?

- A. Atrophic vaginitis
- B. Endometrial carcinoma
- C. Endometriosis
- D. Polycystic ovarian syndrome
- E. Uterine leiomyoma

Answer: A

Atrophic vaginitis (also known as vaginal atrophy, vulvovaginal atrophy, or urogenital atrophy) is an inflammation of the vagina due to the thinning and shrinking of the tissues, as well as decreased lubrication. These symptoms are due to a lack of the reproductive hormone estrogen. The most common cause of vaginal atrophy is the decrease in estrogen which happens naturally during perimenopause, and increasingly so in post-menopause. However, this condition can occur in other circumstances that result in decreased estrogen such as breastfeeding and the use of medications intended to decrease estrogen too, for example, treat endometriosis. The symptoms can include vaginal soreness and itching, as well as painful intercourse, and bleeding after sexual intercourse. The shrinkage of the tissues and loss of flexibility can be extreme enough to make intercourse impossible.

1018. Which of the following is associated with eating undercooked or raw meat?

- A. Giardiasis
- B. Hookworm Disease
- C. Schistosomiasis

D. Trichinellosis

Answer: D

1. **Trichinosis** (trichinellosis) is the result of infection by a parasitic nematode belonging to the genus *Trichinella*.
2. Humans become infected with *Trichinella* by eating raw, undercooked, or underprocessed meat from infected animals most commonly pigs, wild boar, or bear.
3. Trichinellosis typically presents with gastrointestinal complaints (eg, abdominal pain, nausea, vomiting) followed by the characteristic triad of periorbital edema, myositis, and eosinophilia (hallmark of the disease).
4. Other findings include fever, subungual splinter hemorrhages, and conjunctival or retinal hemorrhages.
5. **Diagnosis** is clinical and with serologic tests.
6. Muscle biopsy may be diagnostic but is seldom necessary.
7. **Treatment** is with mebendazole or albendazole and, if symptoms are severe, with prednisone.
8. Trichinosis is prevented by cooking pork or meat from wild animals until brown ($> 71^{\circ}\text{C}$ throughout).

1019. A 41-year-old, mother of 2 children, comes to your clinic for routine breast examination. Her mother had breast cancer at the age of 48. Which of the following investigations you recommend?

- A. BRCA gene test
- B. CA-125
- C. MRI breast
- D. Mammogram
- E. Ultrasound breast

Answer: D

In general, regular mammograms aren't recommended for women under 40 years of age, in part because breast tissue tends to be dense, making mammograms less effective. In 2015, the American Cancer Society actually raised its recommended age for a mammogram to 45. Most experts believe the low risk at that age doesn't justify the exposure to radiation or the cost of mammography. But mammograms may be recommended for younger women with a family history of breast cancer and other risk factors. Women with high breast density are often screened with ultrasound, because mammograms of women with dense breast tissue tend to be harder to interpret. For this reason, ultrasound is frequently a 'first' diagnostic imaging method for women under 35.

1020. A woman with the vaginal infection that grows gram-negative diplococci. Which of the following is the most likely organism which caused the vaginal infection in the woman?

- A. Candida
- B. Chlamydia trachomatis
- C. HSV
- D. N. gonorrhoeae

Answer: D

Neisseria gonorrhoeae, a Gram-negative diplococcus. The long-term sequelae arise from pelvic adhesions, causing chronic pain and infertility. When the active infection becomes symptomatic, it is known as acute pelvic inflammatory disease. Nucleic acid amplification tests (NAAT) of either cervical discharge or urine is the best investigation to exclude gonorrhea infection.

1021. A patient with the polycystic ovarian syndrome. Which of the following is considered the first-line treatment for this disease?

- A. Clomiphene
- B. Lifestyle modifications
- C. Oral contraceptive pills
- D. Spironolactone

Answer: B

Polycystic ovary syndrome is a clinical syndrome characterized by mild obesity, irregular menses or amenorrhea, and signs of androgen excess (eg, hirsutism, acne). In most patients, the ovaries contain multiple cysts. Patients with PCOS are at high risk to develop endometrial hyperplasia and endometrial carcinoma due to unbalanced estrogen secretion. The major features of PCOS include menstrual dysfunction, anovulation, and signs of hyperandrogenism. Other signs and symptoms of PCOS may include the following: 1. Hirsutism 2. Infertility 3. Obesity and metabolic syndrome 4. Diabetes 5. Obstructive sleep apnea. On examination, findings in women with PCOS may include the following: 1. Virilizing signs 2. Acanthosis nigricans 3. Hypertension 4. Enlarged ovaries: May or may not be present; evaluate for an ovarian mass. Lifestyle modifications are considered first-line treatment for women with PCOS. Such changes include the following: 1. Diet 2. Exercise 3. Weight loss. Pharmacologic treatments are reserved for so-called metabolic derangements, such as anovulation, hirsutism, and menstrual irregularities. First-line medical therapy usually consists of an oral contraceptive to induce regular menses.

1022. A 27-year-old G2P1 at 38 weeks gestation was admitted in active labor at 4 cm dilated; spontaneous rupture of membranes occurred prior to admission. She has had one prior uncomplicated vaginal delivery and denies any medical problems or past surgery. She reports an allergy to sulfa drugs. Currently, her vital signs are normal and the fetal heart rate tracing is reactive. Her prenatal record indicates that her group B streptococcus (GBS) culture at 36 weeks was positive. What is the recommended antibiotic for prophylaxis during labor?

- A. Cefazolin
- B. Clindamycin
- C. Erythromycin
- D. Penicillin

Answer: D

Group B streptococci (GBS), or *Streptococcus agalactiae*, has emerged as an important cause of perinatal morbidity and mortality. The gram-positive organism can colonize the lower gastrointestinal tract, and secondary spread to the genitourinary tract is common. Between 10% and 30% of pregnant women are colonized with GBS in the vagina or rectum. Routine prenatal screening is recommended between 35 and 37 weeks. Penicillin remains the agent of choice for intrapartum prophylaxis. Ampicillin is an acceptable alternative, but penicillin is preferred. However, data also show that GBS isolates are increasingly resistant to second-line therapies. Up to 15% of GBS isolates are resistant to clindamycin and 7% to 25% of isolates are resistant to erythromycin. This pattern of resistance has led to a change in the recommendations for second-line therapies. If penicillin allergic, but not at high risk for anaphylaxis, cefazolin is recommended. If penicillin allergic and high risk for anaphylaxis, use clindamycin or erythromycin if isolate is susceptible. If penicillin allergic and high risk for anaphylaxis and GBS resistant to clindamycin or erythromycin, or susceptibilities not available, use vancomycin.

1023. A 34-year-old G1P1 with a history of pulmonary embolism presents to your office to discuss contraception. Her cycles are regular. She has a history of pelvic inflammatory disease last year, for which she was hospitalized. She has currently been sexually active with the same partner for the past year. She wants to use condoms and a spermicide. You counsel her on the risks and benefits. Which of the following statements is true regarding spermicides found in vaginal foams, creams, and suppositories?

- A. Effectiveness is higher in younger users.
- B. Effectiveness is higher than that of the diaphragm.
- C. Spermicides are protective against sexually transmitted infections.
- D. The active agent in spermicides is nonoxynol-9.

Answer: D

Spermicides available in the United States contain nonoxynol-9, that immobilizes or kills sperm on contact. They do not provide protection against sexually transmitted infections. Spermicides provide a mechanical barrier and need to be placed high in the vagina in contact with the cervix before each coital act. High pregnancy rates typically associated with spermicides are mostly due to inconsistent use rather than method failure. Their effectiveness increases with increasing age of the women who use them, probably because of increased motivation. The effectiveness of spermicides is similar to that of the diaphragm, and increases with the concomitant use of condoms. Although it has been reported that contraceptive failures with spermicides may be associated with an increased incidence of congenital malformations, this finding has not been confirmed in several large studies and is not believed to be valid.

1024. A primipara is in the second stage of labor and an episiotomy is about to be cut. Compared with a midline episiotomy, which of the following is an advantage of mediolateral episiotomy?

- A. Ease of repair
- B. Fewer breakdowns
- C. Less blood loss
- D. Less extension of the incision

Answer: D

Midline episiotomies are easier to fix and have a smaller incidence of surgical breakdown, less pain, and lower blood loss. The incidence of dyspareunia is somewhat less. However, the incidence of extensions of the incision to include the rectum is considerably higher than with mediolateral episiotomies. Regardless of technique, attention to hemostasis and anatomic restoration is the key element of a technically appropriate repair.

1025. You are seeing a 37-year-old woman in your office for follow-up of an injury related to domestic violence. She states that her husband is over with his abusive behavior and is treating her like royalty. He has bought her a new necklace to show how sorry he is about the incident. She has changed her plans to seek counseling and to move out. Which of the following is the most likely outcome in this situation?

- A. Abuser accepts responsibility for his behavior.
- B. Cessation of all abuse.
- C. Decreased episodes of violence
- D. Increasing severity of battering.

Answer: D

Domestic violence attacks usually run in cycles of three phases. The first phase consists of a buildup of tension with an escalation of friction between family members. It includes name-calling, intimidation, and mild physical abuse. The second phase is the acute battering, which is an uncontrolled discharge of built-up tension. Verbal or physical abuse may occur. Alcohol is usually involved in two-thirds of cases. The third phase occurs after the abuse has taken place. At this time the batterer apologizes, begs forgiveness, and shows remorse. Abusers will offer gifts and make promises to the victim. They are often very charming in this phase. The cycles repeat themselves, with the first phase becoming longer and increasing in intensity; the battering is usually more severe, and the third phase usually decreases in both length and intensity. Batterers are frequently men who refuse to take responsibility for their actions and often blame the victim. As the cycles continue, batterers usually gain more control over their victims.

1026. A 32-year-old G2P1 at 41 weeks is undergoing an induction of oligohydramnios. During the course of her labor, the fetal heart rate tracing demonstrates severe variable decelerations that do not respond to oxygen, fluid, or amnioinfusion. The patient's cervix is dilated to 4 cm. A low-transverse cesarean delivery is performed for nonreassuring fetal heart tones. After delivery of the fetus you send a cord gas, which comes back with the following arterial blood values: pH 7.29, Pco₂ 50, and Po₂ 20. What condition does the cord blood gas indicate?

- A. Fetal acidemia
- B. Fetal asphyxia
- C. Fetal hypoxia
- D. Normal fetal status

Answer: D

The blood gas results described in this case are normal. Normal values for umbilical arterial samples are pH 7.25 to 7.3, Pco₂ 50 mm Hg, Po₂ 20 mm Hg, and bicarbonate 25 mEq. Acidemia is generally defined as a pH less than 7.20. Birth asphyxia generally refers to hypoxic injury so severe that the umbilical artery pH is less than 7.0, a persistent Apgar score is between 0 and 3 for more than 5 minutes, neonatal sequelae exist such as seizures or coma, and there is multiorgan dysfunction.

1027. A homosexual male presents to his physician with bilateral inguinal buboes (lymph nodes), one of which seems ready to rupture. He recalls having two small, painless genital lesions that healed rapidly. The etiologic agent is isolated using McCoy cells. Which of the following statements best characterizes LGV?

- A. In the United States, it is more common among women
- B. It is most common in temperate regions
- C. LGV does not become chronic
- D. Penicillin is effective in early treatment
- E. The causative agent is *C. trachomatis*

Answer: E

LGV is an STD caused by *C. trachomatis* of immuno-types L1, L2, and L3. It is more commonly found in tropical climates. In the United States, the sex ratio is reported to be 3.4 males to 1 female. Tetracycline has been successful in treating this disease in the early stages; however, late stages usually require surgery. Unless effective antimicrobial drug treatment is given promptly, chronic inflammatory processes can lead to fibrosis, lymphatic obstruction, and rectal strictures.

1028. Which of the following is associated with an increased risk of endometrial cancer?

- A. Age <40
- B. Hyperlipidemia
- C. Obesity
- D. Smoking

Answer: C

1. **Endometrial cancer** is usually endometrioid adenocarcinoma.
2. Typically, postmenopausal vaginal bleeding occurs.
3. Approximately 75% of women with endometrial cancer are postmenopausal. Thus, the most common symptom is postmenopausal bleeding.
4. Endometrial cancer is more common in developed countries where the diet is high in fat.
5. Diagnosis is by biopsy.
6. Staging is surgical. (Stage endometrial cancer surgically via laparotomy, laparoscopy, or a robotic-assisted surgery.)
7. Treatment requires hysterectomy, bilateral salpingo-oophorectomy, and, in high-risk patients, usually pelvic and para-aortic lymphadenectomy.
8. For advanced cancer, radiation, hormone, or cytotoxic therapy is usually indicated.

Major risk factors for endometrial cancer are:

1. Unopposed estrogen
2. Age > 50
3. Obesity
4. Diabetes

Other risk factors include

1. Tamoxifen use for > 5 yr
2. Previous pelvic radiation therapy
3. A personal or family history of breast or ovarian cancer
4. Family history of hereditary nonpolyposis colorectal cancer or possibly, among 1st-degree relatives, endometrial cancer
5. Hypertension

1029. During the evaluation of infertility in a 25-year-old woman, a hysterosalpingogram showed evidence of Asherman syndrome. Which one of the following symptoms would you expect this patient to have?

- A. Amenorrhea
- B. Menometrorrhagia
- C. Menorrhagia
- D. Metrorrhagia

Answer: A

Because of the decreased amount of functional endometrium, progressive hypomenorrhea (lighter menstrual flow) or amenorrhea is common. Oligomenorrhea is defined as infrequent, irregular uterine bleeding greater than 35 days apart, often attributed to anovulation. Ovulation is not affected in Asherman syndrome; therefore, ovulatory patients with Asherman syndrome may continue to have regular periods. The best diagnostic study is the hysterosalpingogram under fluoroscopy. Hysteroscopy with lysis of adhesions is the treatment of choice. Prophylactic antibiotics may improve success rates.

1030. A woman who is postpartum day 2 and is bottle-feeding complains that her breasts are very engorged and tender. She wants you to give her something to make the engorgement go away. Which of the following is recommended to relieve her symptoms?

- A. Breast binder
- B. Bromocriptine
- C. Estrogen-containing contraceptive pills
- D. Pump her breasts

Answer: A

About 40% of women elect not to breast-feed. These women experience milk leakage, engorgement, and breast pain that begins 3 to 5 days postpartum. Ice packs applied to the breasts, a well-fitting bra or binder, and analgesics are all appropriate methods to manage engorged breasts. Bromocriptine, a drug used to lower prolactin levels and suppress lactation, is no longer recommended in postpartum women because this medication being associated with an increased risk of stroke, myocardial infarctions, seizures, and psychiatric disturbances.

1031. A pregnant woman who has a family history of thalassemia wants to know if her future baby could have this disease. Which of the following is the confirmatory test for this pathology?

- A. Amniotic fluid analysis at 12 weeks
- B. Amniotic fluid analysis at 15 weeks
- C. Chorionic villus sampling at 16 weeks
- D. Chorionic villus sampling at 22 weeks

Answer: B

Screening tests for high risk population: CBC (MCV and MCH), Hb electrophoresis or high performance liquid chromatography (HPLC)
Confirmatory tests: Chorionic villus sampling (CVS): between 10-12 weeks, Amniocentesis: between 15-16 weeks to term. Reference: Toronto Notes

1032. A 18-year-old girl presents to the physician with primary amenorrhea. Examination shows normal breast development and minimal axillary and pubic hair. Her external genitalia appear normal but the vagina is short and the cervix is not visible. Bimanual examination confirms the absence of a uterus and cervix and the ovaries are not palpable. Which of the following is the mode of inheritance of this disease?

- A. Autosomal dominant
- B. Autosomal recessive
- C. Mitochondrial
- D. X-linked

Answer: D

Androgen Insensitivity Syndrome

1. It is X-linked disorder
2. It is due to defect in androgen receptor gene
3. All infants are 46, XY
4. All infants have testes and normal testosterone levels

Clinical presentation

1. Infant is phenotypically female at birth
2. Most infants raised as female and identify with female gender
3. External genitalia are female and the vagina ends in a blind pouch
4. No uterus
5. Fallopian tubes may or may not be present
6. Testes are usually intra-abdominal
7. At puberty breast develop normally
8. No menses
9. Sexual hair does not appear
10. Normal male adult height
11. Testosterone may be normal or high

1033. A 33-year-old multigravida at 38 weeks gestation became disoriented, breathless and cyanotic after spontaneous vaginal delivery. The doctor noticed bleeding from the IV line site. Her blood pressure is 75/49 mm Hg, pulse is 120/min, and respirations are 27/min. Oxygen saturation is 70% on facemask. Which of the following is not a risk factor for this disease in the patient?

- A. Advanced maternal age
- B. Multiparity
- C. Smoking
- D. Trauma

Answer: C

1. Amniotic fluid embolism (AFE) is a rare obstetric emergency in which it is postulated that amniotic fluid, fetal cells, hair, or other debris enter the maternal circulation, causing cardiorespiratory collapse.2. Amniotic fluid embolism may occur after amniocentesis or during labor.3. Reported risk factors for development of AFE include multiparity, advanced maternal age, male fetus, and trauma.4. Abrupt onset of hypoxia with respiratory failure, cardiogenic shock and seizures, in a patient who had undergone amniocentesis or delivered, is most likely due to amniotic fluid embolism.5. Disseminated intravascular coagulation (DIC) is the most feared complication in patients with amniotic fluid embolism.

1034. Which of the following is the most common cause of mastitis?

- A. Staphylococcus aureus
- B. Staphylococcus mutans
- C. Staphylococcus pyogenes
- D. Viridans streptococci

Answer: A

1. **Lactational mastitis** is a localized, painful inflammation of the breast associated with fever and malaise that occurs in breastfeeding women.
2. **Risk factors** for lactational mastitis include an episode of mastitis with a previous child, severe prolonged unilateral engorgement, poor milk drainage and nipple excoriation or cracking.
3. **Presents** as a hard, red, tender, swollen area of one breast associated with fever $>38.3^{\circ}\text{C}$ in a nursing mother.
4. Other systemic complaints may variably include myalgia, chills, malaise, and flu-like symptoms. In the early stages of breast infection the presentation can be subtle with few clinical signs, while patients with advanced infection may present with a large area of breast swelling with overlying skin changes (eg, erythema).
5. **It is mostly caused by *Staphylococcus aureus*.**
6. The diagnosis of mastitis is made clinically.
7. **Breastfeeding is not contraindicated in mastitis.**
8. **Treatment**: PO antibiotics (e.g., penicillin, dicloxacillin, erythromycin) and Incision and drainage of breast abscess if present.

1035. You are doing postpartum rounds on a 22-year-old G1P1, who vaginally delivered an infant male at 36 weeks after an induction for severe preeclampsia. During her labor she required hydralazine to control her blood pressures. She is on magnesium sulfate for seizure prophylaxis. Her vital signs are: blood pressure 154/98 mm Hg, pulse 93 beats per minute, respiratory rate 24 breaths per minute, and temperature 37.3°C . She has adequate urine output at greater than 40 cc/h. On examination, she is oriented to time and place, but she is somnolent and her speech is slurred. She has good movement and strength of her extremities, but her deep tendon reflexes are absent. Which of the following is the most likely cause of her symptoms?

- A. Adverse reaction to hydralazine
- B. Hypertensive stroke
- C. Magnesium toxicity
- D. Sinus venous thrombosis

Answer: C

The therapeutic range of serum magnesium to prevent seizures is 4 to 7 mg/dL. At levels between 8 and 12 mg/dL, patellar reflexes are lost. At 10 to 12 mg/dL, somnolence and slurred speech commonly occur. Muscle paralysis and respiratory difficulty occur at 15 to 17 mg/dL, and cardiac arrest occurs at levels greater than 30 mg/dL.

1036. How ectopic pregnancy occurs at the cellular level?

- A. Disappearance of zona pellucida.
- B. Fast division of blastomere.
- C. Fertilization at ampulla tube.
- D. Persistence of Zona pellucida.

Answer: A

As cilia degenerate the amount of time it takes for the fertilized egg to reach the uterus will increase. The fertilized egg, if it doesn't reach the uterus in time, will hatch from the non-adhesive zona pellucida and implant itself inside the fallopian tube, thus causing the pregnancy. Reference: Wikipedia and Clinical reproductive medicine & surgery book - textbook of clinical embryology

1037. A 33-year old woman presented to the clinic with a 6-year history of bilateral breast pain, the pain gets worse during her menses. Physical examination reveals multiple bilateral small breast masses. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Fibrocystic changes
- C. Inflammatory breast carcinoma
- D. Intraductal papilloma

Answer: B

Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer.

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly.

1038. A 28-year-old woman comes to the clinic at 28 weeks gestation complaining of generalized fatigue. The patient's vitals are notable for a blood pressure of 160/100 mmHg. A urine dipstick demonstrates 2+ protein. Which of the following is the best next step for this woman?

- A. Hydralazine
- B. Labetalol
- C. Methyldopa
- D. MgSO₄

Answer: D

The prevention of seizure activity in pre-eclampsia and recurrent seizures in eclamptic patients is an essential aspect of management. Many drugs with anticonvulsant properties have been used to treat patients with pre-eclampsia and eclampsia. Magnesium sulfate is a significantly better drug than either diazepam or phenytoin for preventing recurrent seizures in eclamptic patients. Magnesium sulfate has diverse cardiovascular and neurological effects and also alters calcium metabolism. Magnesium sulfate is now the drug choice for treating eclamptic patients.

<https://www.ncbi.nlm.nih.gov/pubmed/8879973>

1039. Which of the following exacerbate symptoms of primary dysmenorrhea?

- A. Copper IUD
- B. Levonorgasterel IUD
- C. MgSO₄
- D. Nifedipine

Answer: A

Dysmenorrhea is often worse in the first few cycles after insertion of a copper IUD, and along with unscheduled bleeding, is one of the primary reasons for copper IUD discontinuation. However, discontinuation rates for pain are low (0.1 to 2.4 percent) in both copper and LNg20 IUD users. Moreover, the LNg20 and LNg14 have both been found to reduce rates of dysmenorrhea. Mild to moderate dysmenorrhea can be treated with nonsteroidal antiinflammatory drugs (NSAIDs) begun at the onset of menses and maintained for the first three days of each menstrual cycle. Women with severe dysmenorrhea and a copper IUD should consider the LNg20 or LNg14 IUD or choose another method of contraception.

reference: uptodate

1040. A pregnant woman with a history of the previous baby with Down syndrome comes for a regular check-up. Which of the following is the best screening method for Down syndrome?

- A. Amniocentesis with hCG and/or PAPP-A
- B. Chorionic villous biopsy
- C. Triple screen test
- D. Ultrasound with hCG and/or PAPP-A

Answer: D

Here are some tests you may undergo during the first trimester of your pregnancy: Blood tests: During one of your initial examinations, your doctor or midwife will identify your blood type and Rh (rhesus) factor, screen for anemia, check for immunity to rubella (German measles), and test for hepatitis B, syphilis, and HIV and other sexually transmitted diseases. Urine tests: You will also be asked early on for a urine sample so that your doctor or midwife can look for signs of kidney infection and, if necessary, to confirm your pregnancy by measuring the hCG level. (A blood hCG test to confirm pregnancy may be used instead.) Urine samples will then be collected regularly to detect glucose (a sign of diabetes) and albumin (a protein that may indicate preeclampsia, pregnancy-induced high blood pressure). One first semester genetic test combines a blood test with an ultrasound to screen for Down syndrome may be available between 11 and 14 weeks of pregnancy. The results of a blood test that measures hCG and/or PAPP-A (pregnancy-associated plasma protein A) in maternal blood are used with an ultrasound measurement of the skin at the back of the fetus' neck (called nuchal translucency). Chorionic villous biopsy is a confirmation test, not a screening test.

1041. Which of the following antihypertensive is contraindicated in pregnancy?

- A. Captopril
- B. Hydralazine
- C. Methyldopa
- D. Nifedipine

Answer: A

Captopril contraindications:

- Low amount of sodium in the blood
- High amount of potassium in the blood
- Inherited Disorder of Continuing Episodes of Swelling
- Reduction in the body's resistance to infection
- Decreased Function of Bone Marrow
- Decreased Neutrophils a Type of White Blood Cell
- Narrowing of the Aortic Heart Valve
- Renal Artery Stenosis
- Abnormally low blood pressure
- Kidney disease with reduction in kidney function
- Cough
- Giant hives
- Recipient of Organ Transplant
- Pregnancy
- Brain Blood Flow Problem
- Hemodialysis with High-Flux Membrane

Allergies:

ACE Inhibitors

1042. Which of the following is a correct percentage of recurrence of Turner syndrome?

- A. 1,5%
- B. 20%
- C. 5%
- D. 50%
- E. 99%

Answer: A

Recurrence of Turner Syndrome is observed in 1.4%, which represents a 35-fold increased probability of having a second child with TS compared to general population. Source:
<https://www.ncbi.nlm.nih.gov/pubmed/21648298>

1043. Which of the following antiviral compounds inhibits activity of the pyrophosphate-binding site of viral DNA polymerases and is used to treat serious infections with cytomegalovirus?

- A. Amantadine
- B. Foscarnet
- C. Ganciclovir
- D. Ribavirin
- E. Zidovudine

Answer: B

Both foscarnet (b) and ganciclovir (c) are used to treat cytomegalovirus infection, but foscarnet inhibits pyrophosphate binding activity of viral DNA polymerase while ganciclovir is a nucleoside analog that prevents elongation of the DNA chain. Zidovudine (e) is a nucleoside analog that inhibits viral reverse transcriptases. Amantadine (a) blocks the M2 channel of influenza virus A preventing release of the nucleocapsid into the cell. Ribavirin (d) targets the RNA-dependent RNA polymerases of several minus sense ss RNA viruses, especially respiratory syncytial virus and Lassa fever virus.

1044. NGU is the most common STD in men. Within 2 weeks, the symptoms usually include painful urination and a urethral discharge. Because of the similarity of NGU symptoms with *Neisseria gonococcus* infection, diagnosis depends on culture of the discharge. While the majority of NGU are caused by *C. trachomatis*, which of the following organisms is very significant in causing additional cases in humans?

- A. *Mycoplasma fermentans*
- B. *Mycoplasma hominis*
- C. *Mycoplasma orale*
- D. *Mycoplasma pneumoniae*
- E. *Ureaplasma urealyticum*

Answer: E

Members of the mycoplasma group that are pathogenic for humans include *M. pneumoniae* and *U. urealyticum*. *Mycoplasma pneumoniae* is best known as the causative agent of PAP, which may be confused clinically with influenza or legionellosis. It also is associated with arthritis, pericarditis, aseptic meningitis, and the Guillain–Barré syndrome. *M. pneumoniae* can be cultivated on special media and identified by immunofluorescence staining and “fried egg” colonies on agar. *Ureaplasma urealyticum* (once called tiny, or T. strain) has been implicated in cases of NGU. As the name implies, this organism is able to split urea, a fact of diagnostic significance. *Ureaplasma urealyticum* is part of the normal flora of the genitourinary tract, particularly in women. Both *M. orale* and *M. salivarium* are inhabitants of the normal human oral cavity. These species are commensals and do not play a role in disease. The only other species of *Mycoplasma* associated with human disease is *M. hominis*. A normal inhabitant of the genital tract of women, this organism has been demonstrated to produce an acute respiratory illness that is associated with sore throat and tonsillar exudate, but not with fever. *M. hominis* can cause disease outside the urinary tract in immunosuppressed patients or immunocompetent patients after trauma of the genitourinary tract. Other opportunistic infections known to be caused by *M. hominis* include wound infections, osteomyelitis, brain abscess, pneumonia, and peritonitis. It has been associated with neonatal pneumonia and sepsis. *Mycoplasma fermentans* is an animal isolate.

1045. A 50-year-old patient complains of bloody vaginal discharge for two weeks. Her menopause was 3 years ago. She visited a gynecologist one year ago. Which of the following would be the best next step for this woman?

- A. Hormonal hemostasis
- B. Tamponade of the vagina
- C. Transvaginal ultrasonography
- D. Urgent surgical treatment

Answer: C

In postmenopausal bleeding, guidelines from the United States consider transvaginal ultrasonography to be an appropriate first-line procedure to identify which women are at higher risk of endometrial cancer. A cut-off threshold of 3 mm or less of endometrial thickness should be used for in women with postmenopausal bleeding in the following cases:

Not having used hormone replacement therapy for a year or more
Usage of continuous hormone replacement therapy consisting of both an estrogen and a progestagen

A cut-off threshold of 5 mm or less should be used for women on sequential hormone replacement therapy consisting both of an estrogen and a progestagen.

If the endometrial thickness equals the cut-off threshold or is thinner, and the ultrasonography is otherwise reassuring, no further action need be taken. Further investigations should be carried out if symptoms recur.

If the ultrasonography is not reassuring, hysteroscopy and endometrial biopsy should be performed. The biopsy may be obtained either by curettage at the same time as inpatient or outpatient hysteroscopy, or by using an endometrium sampling device such as a pipelle which can practically be done directly after the ultrasonography

1046. You are a chief resident at a university hospital and are called down to the emergency room at 5:00 AM on a Saturday to evaluate an 18-year-old undergraduate, who presented to the emergency room complaining of being a victim of sexual assault while attending a fraternity party the evening before. When you first encounter this patient to take a detailed history, she remains very calm but has trouble remembering the details of the experience. She denies any ingestion of any alcohol or illicit drugs. Which of the following is most likely a component of the acute phase of the rape trauma syndrome?

- A. Always in control of emotions.
- B. Duration for up to 6 months after the event.
- C. No physical complaints
- D. The reaction of the victim may be influenced by victim's relationship to the attacker

Answer: D

The immediate or acute phase of the rape trauma syndrome can last for hours to days. It is associated with a paralysis of the victim's usual coping mechanisms. The victim's response may be complete emotional breakdown or well-controlled behavior. The actual reaction of the victims will depend on many factors, including use of force, length of attack or how long they were held against their will, and their relationship to the attacker (stranger versus someone close to them). The victim is usually disorganized immediately after the assault and has both physical and emotional complaints.

1047. A 72-year-old G6P6 woman presents to her obstetrician after having a history of increased pelvic pressure and a "bulge" that is felt in her vagina when she coughs for 1 weeks. Which of the following is the most likely diagnosis in this woman?

- A. Femoral hernia
- B. Indirect hernia
- C. Rectovaginal prolapse
- D. Ureterovaginal prolapse

Answer: D

Uterine prolapse is a form of female genital prolapse. It is also called pelvic organ prolapse or prolapse of the uterus (womb). Risk factors for uterine prolapse include pregnancy, childbirth, chronic increases in intra-abdominal pressure such as lifting, coughing or straining, connective tissue conditions, and damage to or weakness of the muscles. The uterus is normally held in place by a hammock of muscles and ligaments. Prolapse happens when the ligaments supporting the uterus become so weak that the uterus cannot stay in place and slips down from its normal position. These ligaments are the round ligament, uterosacral ligaments, broad ligament and the ovarian ligament. The uterosacral ligaments are by far the most important ligaments in preventing uterine prolapse. The most common cause of uterine prolapse is trauma during childbirth, in particular multiple or difficult births. About 50% of women who have had children develop some form of pelvic organ prolapse in their lifetime. It is more common as women get older, particularly in those who have gone through menopause. This condition is surgically correctable. Treatment may be conservative or surgical and should be based upon patient symptoms and preference.

1048. A young female comes with complaints that her skin is yellow. You ordered liver function tests which show high indirect bilirubin. Her husband is HBV positive. Which of the following could confirm the diagnosis in this woman?

- A. Anti-HBe
- B. Anti-HBs
- C. HBcAg
- D. HBsAg

Answer: D

The hepatitis B surface antigen (HBsAg) is most frequently used to screen for the presence of this infection. It is the first detectable viral antigen to appear during infection.

1049. Which of the following used for emergency contraception?

- A. Combined OCP
- B. Depot medroxyprogesterone acetate (DMPA)
- C. Levonorgestrel
- D. Progestin Only Pill

Answer: C

1. Emergency contraception (EC), are birth control measures that may be used after sexual intercourse to prevent pregnancy.
2. Usually, hormones (eg, ulipristal acetate, levonorgestrel) are used for emergency contraception (EC); they are taken as soon as possible within 120 h of unprotected intercourse.
3. Oral levonorgestrel (Plan B) is the most readily available emergency contraception; it works by delaying ovulation but is ineffective post-fertilization. Patients desiring emergency contraception should be provided oral levonorgestrel as soon as possible, as the efficacy decreases with time.
4. The probability of pregnancy is reduced by 85% after levonorgestrel EC, which has a pregnancy rate of 2 to 3%.

1050. A 20-year-old woman with Mullerian agenesis is undergoing laparoscopic appendectomy by a general surgeon. You are consulted intraoperatively because the surgeon sees several lesions in the pelvis

suspicious for endometriosis. You should tell the surgeon which of the following?

- A. Endometriosis cannot occur in patients with Mullerian agenesis because they have a 46, XY karyotype.
- B. Endometriosis cannot occur in patients with Mullerian agenesis since they do not have a uterus
- C. Endometriosis is common in women with Mullerian agenesis since they have menstrual outflow obstruction.
- D. Endometriosis may arise in patients with Mullerian agenesis as a result of coelomic metaplasia.
- E. Endometriosis probably occurs in patients with Mullerian agenesis as a result of retrograde menstruation.

Answer: D

Retrograde menstruation is currently believed to be the major cause of endometriosis. Supporting this belief are the following findings: inversion of the uterine cervix into the peritoneal cavity can cause monkeys to develop endometriosis; endometrial tissue is viable outside the uterus; and blood can issue from the ends of the fallopian tubes of some women during menstruation. The fact that endometrial implants can occur in the lung implies that lymphatic or vascular routes of spread of the disease also are possible. Another theory of the etiology of endometriosis entails the conversion of celomic epithelium into glands resembling those of the endometrium. Endometriosis in men, or in women without Mullerian structures, is an example of this causative mechanism.

1051. A couple comes for a medical consultation about pregnancy. She and her husband have an unprotected sexual intercourse for 14 months without success. Which of the following is the best next step to confirm the diagnosis?

- A. Endometrial biopsy
- B. Hysterosalpingogram
- C. Progesterone challenge test
- D. Semen analysis

Answer: D

Infertility is defined as the inability to achieve pregnancy after one year of regular, unprotected intercourse. Evaluation may be initiated sooner in patients who have risk factors for infertility or if the female partner is older than 35 years. Causes of infertility include male factors, ovulatory dysfunction, uterine abnormalities, tubal obstruction, peritoneal factors, or cervical factors. A history and physical examination can help direct the evaluation. Men should undergo evaluation with a semen analysis. Abnormalities of sperm may be treated with gonadotropin therapy, intrauterine insemination, or in vitro fertilization. Ovulation should be documented by serum progesterone level measurement at cycle day 21. Evaluation of the uterus and fallopian tubes can be performed by hysterosalpingography in women with no risk of obstruction. For patients with a history of endometriosis, pelvic infections, or ectopic pregnancy, evaluation with hysteroscopy or laparoscopy is recommended. Women with anovulation may be treated in the primary care setting with clomiphene to induce ovulation. Treatment of tubal obstruction generally requires referral for subspecialty care. Unexplained infertility in women or men may be managed with another year of unprotected intercourse, or may proceed to assisted reproductive technologies, such as intrauterine insemination or in vitro fertilization.

1052. A Pregnant women is Rh-positive and her baby is Rh-positive. Which of the following complication most likely could be seen in the baby?

- A. Anemia
- B. Hydrops fetalis
- C. Jaundice
- D. No complications

Answer: D

Our woman is Rh-positive so no complication could be seen in the baby.

Rh disease (also known as rhesus isoimmunisation, Rh (D) disease, rhesus incompatibility, rhesus disease, RhD hemolytic disease of the newborn, rhesus D hemolytic disease of the newborn or RhD HDN) is a type of hemolytic disease of the newborn (HDN). The disease ranges from mild to severe, and typically occurs only in some second or subsequent pregnancies of Rh negative women where the fetus's father is Rh positive, leading to a Rh+ pregnancy.

Some of the more common complications of Rh disease for the fetus and newborn baby include the following:

Anemia (in some cases, the anemia is severe with enlargement of the liver and spleen)

Jaundice yellowing of the skin, eyes, and mucous membranes.

Hydrops fetalis- this occurs as the fetal organs are unable to handle the anemia. The heart begins to fail and large amounts of fluid build up in the fetal tissues and organs. A fetus with hydrops fetalis is at great risk of being stillborn.

1053. A 30-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Laboratory studies are normal.

Which of the following is the most likely diagnosis?

- A. Adenomyosis
- B. Endometriosis
- C. Ovarian cancer
- D. Pelvic congestion syndrome

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity
2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled “chocolate cyst”).
3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus.
4. Laparoscopy is the gold standard for the diagnosis of endometriosis.
5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal.
6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

1054. A 26-year-old female with three months history of bilateral clear fluid coming out of her both breasts for 2 weeks. She has a normal menstrual cycle. Which of the following is the best diagnostic procedure for diagnosis in this patient?

- A. ACTH
- B. Mammogram
- C. Neuroimaging.
- D. Prolactin assay.

Answer: D

A prolactinoma is a benign tumor of the pituitary gland that produces a hormone called prolactin. It is the most common type of functioning pituitary tumor. Symptoms of prolactinoma are too much prolactin in the blood (hyperprolactinemia), or those caused by pressure of the tumor on surrounding tissues. Prolactin stimulates the breast to produce milk, and has many other functions such as regulation. The symptoms due to a prolactinoma are amenorrhea, galactorrhea, loss of axillary and pubic hair, hypogonadism, gynecomastia, erectile dysfunction (in males)

1055. A 31-year-old woman presents to the doctor with high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most pathological mechanism of disease in this patient?

- A. Ascending urinary tract infection
- B. Direct contact
- C. Fecal-oral transmission
- D. Hematogenic

Answer: A

Pyelonephritis 1. Infection of renal parenchyma most commonly caused by *Escherichia coli*; *Staphylococcus saprophyticus*, *Klebsiella*, and *Proteus* are less common pathogens; *Candida* is a potential cause in immunocompromised patients. 2. *Escherichia coli* accounts for more than 70% of cases. 3. Most commonly occurs as sequelae of ascending urinary tract infection (UTI). 4. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state. 5. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms. 6. Risk factors: urinary obstruction, immunocompromise, history of previous pyelonephritis, diabetes mellitus (DM), sexual intercourse >3 times/week, spermicide use. 7. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness. 8. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins. 9. Complications: increased risk of preterm labor and low birth weight in pregnant women

1056. What is the definition of menometrorrhagia?

- A. Bleeding at regular intervals that is prolonged in duration (>7 d) or excessive in amount
- B. Bleeding that is decreased in amount
- C. Excessive bleeding at usual time of menstrual periods and at other irregular intervals
- D. Total cessation of the menstrual period

Answer: C

Abnormal Uterine Bleeding

1-**Hypomenorrhea**: bleeding that is decreased in amount

2-**Oligomenorrhea**: bleeding occurring at intervals >35 d

3-**Polymenorrhea**: bleeding occurring at intervals

Menorrhagia/hypermenorrhea: bleeding at regular intervals that is prolonged in duration (>7 d) or excessive in amount (>80 cc per menstrual cycle)

4-**Metrorrhagia**: bleeding at irregular intervals, particularly between expected menstrual periods

5-**Menometrorrhagia**: excessive bleeding at usual time of menstrual periods and at other irregular intervals

6-**Postmenopausal bleeding**: any bleeding that presents >1 yr after menopause; must rule out endometrial cancer

7-**Amenorrhea** : total cessation of the menstrual period

1057. A woman comes to the office with complaints of mild right lower quadrant abdominal pain for 4 hours. She is sexually active and does not use contraception. Her last period was 6 weeks ago. A vaginal ultrasound is performed the uterus was empty. Which of the following is the best next step to confirm the diagnosis?

- A. Colposcopy
- B. Complete blood count
- C. Urine analysis
- D. Urine b-hCG

Answer: D

This patient most likely has secondary amenorrhea caused by ectopic pregnancy. The best next step to confirm the diagnosis is to get a pregnancy test - b-hCG urine test.

1058. One of your obstetric patients presents to the office at 25 weeks complaining of severe left calf pain and swelling. The area of concern is slightly edematous, but no erythema is apparent. The patient demonstrates a positive Homans sign, and you are concerned that she may have a deep vein thrombosis. Which of the following diagnostic modalities should you order?

- A. Compression ultrasonography

- B. Computed tomographic scanning
- C. MRI
- D. Venography

Answer: A

Noninvasive modalities are currently the preferred tests for diagnosing venous thromboemboli. Venography is still the gold standard, but it is not commonly used because it is cumbersome to perform and expensive and has serious complications. Compression ultrasonography or color Doppler ultrasound is the procedure of choice to detect proximal deep vein thrombosis. MRI and CT scanning are used in specific cases when ultrasound findings are equivocal.

1059. A 32-year-old primigravid woman at 22 weeks gestation is brought the doctor with high fever, dysuria, flank pain, nausea and vomiting. Which of the following is the most appropriate next step in management?

- A. Hospitalization with administration of IV fluids and antibiotics
- B. Nitrofurantoin for 3 days
- C. Oral antibiotics for 5 days
- D. Surgical consultation

Answer: A

Pyelonephritis 1. Escherichia coli accounts for more than 70% of cases. 2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state. 3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms. 4. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness. 5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins. 6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes). 7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

1060. A woman comes with symptoms of white, cheesy, vaginal discharge. She is smoking 1 pack of cigarettes per day. She has 4-5 intercourses per week with her husband protected by condoms. She uses vaginal douche

every week. Microscopy with KOH shows pseudohyphae. Which of the following is the biggest risk factor for the development of this disease?

- A. Condom use
- B. Number of intercourse
- C. Smoking
- D. Vaginal douche

Answer: D

This woman has Candidiasis. Douching is the practice of washing or flushing the vagina with water or other fluids. The American College of Obstetricians and Gynecologists (ACOG) recommends that women avoid the practice of vaginal douching. Douching can disrupt the balance of bacteria in the vagina and can alter the normal pH of the vagina. Changes in the composition of the bacteria that normally reside within the vagina can lead to an increased risk of vaginal infections such as yeast infections (Candidiasis). Douching can also cause the spread of harmful bacteria further up into the reproductive tract if an infection is already present in the vagina.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2567125/>

https://www.medicinenet.com/vaginal_douche_douching/article.htm

1061. A 26-year-old female in the third trimester of her first pregnancy develops persistent headaches and swelling of her legs and face. Early during her pregnancy, a physical examination was unremarkable; however, now her blood pressure is 170/105 mmHg and urinalysis reveals slight proteinuria. What is the diagnosis?

- A. Eclampsia
- B. Gestational trophoblastic disease
- C. Nephritic syndrome
- D. Nephrotic syndrome
- E. Preeclampsia

Answer: E

Pre-eclampsia is a disorder of pregnancy characterized by the onset of high blood pressure and often a significant amount of protein in the urine. The condition begins after 20 weeks of pregnancy. In severe disease, there may be red blood cell breakdown, a low blood platelet count, impaired liver function, kidney dysfunction, swelling, shortness of breath due to fluid in the lungs, or visual disturbances. Pre-eclampsia increases the risk of poor outcomes for both the mother and the baby. If left untreated, it may result in seizures at which point it is known as eclampsia.

1062. Which of the following correlates most with cervical dysplasia?

- A. HPV 16 and 18
- B. HPV 31 and 33
- C. HPV 33 and 35
- D. HPV 6 and 11

Answer: A

1. **Cervical cancer** is caused by persistent infection with human papillomavirus (HPV) and accounts for one in ten cancers diagnosed in women worldwide. It is usually a squamous carcinoma.
2. Persistence of HPV infection is the most important factor in developing cervical cancer; HPV is detected in 99% of cervical tumours.
3. There are around 80 types of HPV that are related to cervical cancer.
4. The **high-risk types** - HPV 16 and 18 - are highly involved in 70% of cervical cancer
5. Subtypes 6 and 11 typically have a low malignant potential. The subtypes 31, 33, and 35 have an intermediate potential for dysplasia.

1063. A 38-year old women presented to the clinic with a firm, painless mass in her left breast. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Intraductal papilloma
- C. Mastitis
- D. Phyllodes tumor

Answer: A

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

1064. A 25-year-old primigravid woman at 28 weeks gestation is brought the doctor with a high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most likely diagnosis in this patient?

- A. Appendicitis
- B. Ovarian torsion
- C. Pyelonephritis
- D. Renal colics

Answer: C

Pyelonephritis

1. Escherichia coli accounts for more than 70% of cases.
2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
4. **Clinical features:** flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38.3°C), costovertebral tenderness
5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes).
7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

1065. A 29-year-old G3P0 presents to your office for preconception counseling. All of her pregnancies were lost in the first trimester. She has no significant past medical or surgical history. She should be counseled that without evaluation and treatment her chance of having a live birth is which of the following?

- A. <20%
- B. 20% to 35%
- C. 40% to 50%
- D. 70% to 85%

Answer: C

Miscarriage risk rises with the number of prior spontaneous abortions. Without treatment, the live birth rate approaches 50%. With treatment, successful pregnancy rates of 70% to 85% are possible in a patient with a diagnosis of habitual abortion. When cervical incompetence is present and a cerclage is placed, success rates range as high as 90%.

1066. A 53-year-old woman comes to the clinic with a firm, mobile, painless mass in her right breast. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Intraductal papilloma
- C. Medullary carcinoma
- D. Paget disease of breast

Answer: A

Explanation Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

1067. A 33-year-old woman comes to the clinic at 28 weeks of gestation complaining of headaches. Her blood pressure is 165/90 mmHg. A urine dipstick demonstrates 3+ protein. The uterine fundal level is lower than should be for her gestational age. Which of the following is a cause of intrauterine growth retardation?

- A. Elevated maternal liver enzymes
- B. Oligohydramnios
- C. Polyhydramnios
- D. Uteroplacental insufficiency

Answer: D

Intrauterine growth retardation (IUGR), which is defined as less than 10 percent of predicted fetal weight for gestational age, may result in significant fetal morbidity and mortality if not properly diagnosed. The condition is most commonly caused by inadequate maternal-fetal circulation, with a resultant decrease in fetal growth. Less common causes include intrauterine infections such as cytomegalovirus and rubella, and congenital anomalies such as trisomy 21 and trisomy 18. When IUGR is recognized, it is important to attempt to correct reversible causes, although many of the conditions responsible for IUGR are not amenable to antenatal therapy. Close fetal surveillance with delivery before 38 weeks of gestation is usually recommended. Some infants born with IUGR have cognitive and medical problems, although for most infants the long-term prognosis is good.

Preeclampsia causes placental damage that results in uteroplacental insufficiency. The pathogenic mechanism is thought to be a failure of trophoblastic invasion by maternal spiral arterioles by 20 to 22 weeks of gestation.¹ This failure causes luminal narrowing and medial degeneration, leading to diminished blood flow to the developing infant. Consequently, these infants fail to grow normally.
<https://www.aafp.org/afp/1998/1015/p1384.html>

1068. A woman complains of headaches, restlessness, sweating, and tachycardia. She is at 18 weeks of pregnancy and her blood pressure is 200/120 mm Hg. Which of the following is the best next step?

- A. Abdominal CT scan
- B. Abdominal ultrasonogram
- C. Head CT scan
- D. Mesenteric angiography

Answer: B

Fetal distress refers to the presence of signs in a pregnant woman that suggest that the fetus may not be well. Generally, it is preferable to describe specific signs in lieu of declaring fetal distress that includes: Decreased movement felt by the mother Meconium in the amniotic fluid ("meconium stained fluid") Non-reassuring patterns seen on cardiotocography: increased or decreased fetal heart rate (tachycardia and bradycardia), especially during and after a contraction, decreased variability in the fetal heart rate, late decelerations. Almost all of this can be seen by ultrasound examination.

1069. An infant born at 35 weeks' gestation to a mother with no prenatal care is noted to be jittery and irritable, and is having difficulty feeding. You note coarse tremors on examination. The nurses report a high-pitched cry and note several episodes of diarrhea and emesis. You suspect which of the following?

- A. Cocaine exposure in utero
- B. Fetal alcohol syndrome
- C. Heroin withdrawal syndrome
- D. Prenatal exposure to marijuana

Answer: C

Infants born to narcotic addicts are more likely than other children to exhibit a variety of problems, including perinatal complications, prematurity, and low birth weight. The onset of withdrawal commonly occurs during an infant's first 2 days of life and is characterized by hyperirritability and coarse tremors, along with vomiting, diarrhea, fever, highpitched cry, and hyperventilation; seizures and respiratory depression are less common. The production of surfactant can be accelerated in the infant of a heroin-addicted mother. In utero exposure to alcohol leads to a fetal alcohol syndrome consisting of growth retardation, microcephaly, flat philtrum, thin upper lip, cardiac defects, and hypoplastic fifth fingernails. Maternal cocaine use puts the infant at risk for vascular accidents and premature delivery, but not a withdrawal syndrome. Similarly, marijuana is not associated with neonatal withdrawal. Maternal tobacco use can result in small-for-gestation age infants, but not a neonatal withdrawal syndrome as described in the question.

1070. A 30-year-old patient complains about an inability to become pregnant over 3 years of married life. The patient is of supernutrition type, she has hair along the median abdominal line, on the internal thigh surface, and in the peripapillary area. Menses started at the age of 16, they are infrequent and non-profuse. Ultrasound examination revealed that the uterus is of normal size, ovaries are 4x5x5 cm large and had a lot of cystic inclusions. Which of the following is the most probable diagnosis?

- A. Bilateral ovarian tumors
- B. Chronic oophoritis
- C. Ovarian cystoma
- D. Polycystic Ovary Syndrome

Answer: D

Polycystic ovary syndrome (PCOS) is a set of symptoms due to elevated androgens (male hormones) in women. Signs and symptoms of PCOS include irregular or no menstrual periods, heavy periods, excess body and facial hair, acne, pelvic pain, difficulty getting pregnant, and patches of thick, darker, velvety skin. Associated conditions include type 2 diabetes, obesity, obstructive sleep apnea, heart disease, mood disorders, and endometrial cancer. PCOS is due to a combination of genetic and environmental factors. Risk factors include obesity, not enough physical exercise, and a family history of someone with the condition. Diagnosis is based on two of the following three findings: no ovulation, high androgen levels, and ovarian cysts. Cysts may be detectable by ultrasound. Other conditions that produce similar symptoms include adrenal hyperplasia, hypothyroidism, and hyperprolactinemia.

1071. Intrauterine Device (IUD) is contraindicated in which of the following?

- A. Ectopic pregnancy
- B. Endometriosis
- C. Gestational trophoblastic disease
- D. Migraine headaches

Answer: C

Absolute contraindications for IUD use include the following:

1. Pregnancy
2. Significantly distorted uterine anatomy
3. Unexplained vaginal bleeding concerning for pregnancy or pelvic malignancy
4. Gestational trophoblastic disease with persistently elevated beta-human chorionic gonadotropin levels
5. Ongoing pelvic infection

IUD use is safe in women with the following conditions:

1. History of an ectopic pregnancy
2. History of pelvic surgery
3. Hypertension or other forms of heart disease
4. History of deep venous thrombosis
5. History of migraine headaches
6. Anemia
7. Diabetes
8. Endometriosis
9. Smoking

1072. A lactating mother comes to the doctor with left breast pain that started a few days ago. The pain is associated with fever and fatigue. Examination shows tenderness and swelling of the left breast. Which of the following is the appropriate management of this patient?

- A. Analgesics, frequent breastfeeding, and antibiotics
- B. Incision and drainage
- C. Needle biopsy
- D. Stop breastfeeding

Answer: A

Mastitis

1. Lactational mastitis: Common in the first few months of lactation.
2. It is mostly caused by *Staphylococcus aureus*, affects one quadrant and is treated with penicillinase-resistant penicillins.
3. Mastitis is not a contraindication to breastfeeding.
4. Symptoms often begin 2–4 weeks postpartum; are usually unilateral; and include focal breast tenderness, erythema, edema, warmth, and possible purulent nipple drainage.
5. Treatment: Continued breastfeeding and PO antibiotics (e.g., penicillin, dicloxacillin, erythromycin).
6. Incision and drainage of breast abscess if present.

1073. A 24-year-old woman is in a car accident and is taken to an emergency room, where she receives x-ray examinations of her neck, chest, and lower spine. It is later discovered that she is 10-weeks pregnant. Which of the following is the most appropriate statement to make to the patient?

- A. At 10 weeks, the fetus is particularly susceptible to derangements of the central nervous system (CN)
- B. Either chorionic villus sampling (CVS) or amniocentesis is advisable to check for fetal chromosomal abnormalities.
- C. The fetus has received 50 rads of x-ray exposure and will likely abort.
- D. The fetus has received less than the assumed threshold for radiation damage.

Answer: D

While a 50-rad exposure in the first trimester of pregnancy would be expected to entail a high likelihood of serious fetal damage and wastage, the anticipated fetal exposure for chest x-ray and one film of the lower spine would be less than 1 rad. This is well below the threshold for increased fetal risk, which is generally thought to be 10 rads. High doses of radiation in the first trimester primarily affect developing organ systems such as the heart and limbs; in later pregnancy, the brain is more sensitive. The chromosomes are determined at the moment of conception. Radiation does not alter the karyotype, and determination of the karyotype is not normally indicated for a 24-year-old patient. The incidence of leukemia is raised in children receiving radiation therapy or those exposed to the atomic bomb, but not from such a minimal exposure as here.

1074. A 16-year-old G1P0 at 38 weeks gestation comes to the labor and delivery suite for the second time during the same weekend that you are on call. She initially presented to labor and delivery at 2:00 PM Saturday afternoon complaining of regular uterine contractions. Her cervix was 1 cm dilated, 50% effaced with the vertex at -1 station, and she was sent home after walking for 2 hours in the hospital without any cervical change. It is now Sunday night at 8:00 PM, and the patient returns to labor and delivery with increasing pain. She is exhausted because she did not sleep the night before because her contractions kept waking her up. The patient is placed on the external fetal monitor. Her contractions are occurring every 2 to 3 minutes. You reexamine the patient and determine that her cervix is unchanged. Which of the following is the best next step in the management of this patient?

- A. Administer 10 mg intramuscular morphine.
- B. Administer Pitocin to augment labor.
- C. Administer an epidural.
- D. Perform artificial rupture of membranes to initiate labor

Answer: A

This patient is either experiencing prolonged latent labor or is in false labor. The latent phase of labor begins with the onset of regular uterine contractions and is accompanied by progressive but slow cervical dilation. The latent phase ends when the cervical dilation rate reaches about 1.2 cm/h in nulliparous patients and 1.5 cm/h in multiparous patients; this normally occurs when the cervix is about 3 to 4 cm dilated. In nulliparous patients, the latent phase of labor usually lasts less than 20 hours (in multiparous patients, it lasts > 14 hours). To correct prolonged latent labor, it is generally recommended that a strong sedative such as morphine be administered to the patient. This is preferred over augmentation with Pitocin or performing an amniotomy, because 10% of patients will actually have been in false labor and these patients will stop contracting after administration of morphine. If a patient truly is in labor, then, after the sedative wears off, she will have undergone cervical change and will have benefited from the rest in terms of having additional energy to proceed with labor. An epidural would not be recommended because the patient may be in false labor. There is no role for cervical ripening in this patient because of the fact that she might be in false labor and can go home and wait for natural cervical ripening if her uterine contractions resolve with a therapeutic rest with morphine.

1075. A 24-year-old woman presents with severe pain with menses. Ultrasound examination shows bilateral hypoechogenic ovarian cysts. She reports feeling pain with defecation and intercourse. Which of the following is the most likely diagnosis in this woman?

- A. Endometriosis
- B. Mittelschmerz
- C. Ovarian torsions
- D. Polycystic ovarian syndrome
- E. Simple cysts

Answer: A

This woman most likely has endometriosis based on the diagnosis and ultrasound examination. Endometriosis is a condition in which the layer of tissue that normally covers the inside of the uterus grows outside of it. Most often this is on the ovaries, fallopian tubes, and tissue around the uterus and ovaries; however, in rare cases it may also occur in other parts of the body. Pain and infertility are common symptoms, although 20-25% of women are asymptomatic. The most accurate test for this disease is laparoscopy with histologic confirmation.

1076. A female patient comes with complaints of bilateral vitiligo in hands. Which of the following is the initial method of treatment of this diseases?

- A. Apply topical steroids
- B. Graft
- C. Melanin transfer
- D. Monobenzene
- E. Phototherapy

Answer: A

There is no cure for vitiligo but several treatment options are available. The best evidence is for applied steroids and the combination of ultraviolet light in combination with creams. Due to the higher risks of skin cancer, the United Kingdom's National Health Service suggests phototherapy only be used if primary treatments are ineffective. Lesions located on the hands, feet, and joints are the most difficult to repigment; those on the face are easiest to return to the natural skin color as the skin is thinner in nature. Topical preparations of immune suppressing medications including glucocorticoids (such as 0.05% clobetasol or 0.10% betamethasone) and calcineurin inhibitors (such as tacrolimus or pimecrolimus) are considered to be first-line vitiligo treatments. Phototherapy is considered a second-line treatment for vitiligo. The removal of all the skin pigment with monobenzene is permanent and vigorous.

1077. A 34-year-old G2 at 36 weeks delivers a growth-restricted infant with cataracts, anemia, patent ductus arteriosus, and sensorineural deafness. She has a history of chronic hypertension, which was well controlled with methyldopa during pregnancy. She had a viral syndrome with rash in early pregnancy. What is the most likely causative agent?

- A. Parvovirus
- B. Rubella virus
- C. Rubeola
- D. Toxoplasma gondii

Answer: B

Rubella is one of the most teratogenic agents known. Fetal manifestations of infection correlate with time of maternal infection and fetal organ development. If infection occurs in the first 12 weeks, 80% of fetuses manifest congenital rubella syndrome, while only 25% if occurs at the end of the second trimester. Congenital rubella syndrome includes one or more of the following: eye lesions, cardiac disease, sensorineural deafness, CNS defects, growth restriction, thrombocytopenia, anemia, liver dysfunction, interstitial pneumonitis, and osseous changes. Rubeola (measles) virus does not appear to have any teratogenic effect on the fetus.

1078. Which of the following is the most specific test to diagnose bacterial vaginosis?

- A. KOH pseudohyphae
- B. Saline smear
- C. The whiff test
- D. pH>4,5

Answer: B

Demonstration of clue cells on a saline smear is the most specific criterion for diagnosing bacterial vaginosis. Clue cells are vaginal epithelial cells that have bacteria adherent to their surfaces. The edges of the squamous epithelial cells, which normally have a sharply defined cell border, become studded with bacteria. The epithelial cells appear to be peppered with coccobacilli.

<https://emedicine.medscape.com/article/254342-workup>

1079. A 60-year-old female comes to the office with complaints of unilateral bloody nipple discharge. During the physical examination, the mass is firm, subareolar, 1 cm in diameter. Which of the following would be the best next step for this patient?

- A. Bilateral mammography
- B. Core biopsy with sentinel node biopsy

- C. Fine-needle aspiration
- D. Open biopsy

Answer: A

This patient most likely has breast cancer. The best next step is to exclude bilateral breast cancer by bilateral mammography.

1080. Which of the following is a correct date of starting screening for cervical cancer?

- A. Started at age 16 regardless of sexual activity
- B. Started at age 18 regardless of sexual activity
- C. Started at age 21 regardless of sexual activity
- D. Started at age when started sexual activity

Answer: C

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test).

<https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

1081. Which of the following non hormonal supplements will decrease the hot flashes in postmenopausal women?

- A. Alcohol
- B. Bromocriptine
- C. Diazepam
- D. Paroxetine

Answer: D

Paroxetine is an effective treatment for hot flashes in women with or without a prior breast cancer.

<https://www.ncbi.nlm.nih.gov/pubmed/16192581>

SSRIs/SNRLs, gabapentin, clonidine. Reference: first Aid USMLE step 2

1082. A female comes to the office with complaints that her menstrual cycle has not started yet. The woman is short-statured and has notably delayed breast development with webbing skin between the neck and shoulders. Which of the following would be seen in her blood analysis?

- A. High estrogen
- B. High progesterone
- C. Low estrogen
- D. low FSH
- E. low LH

Answer: C

This girl most likely has Turner syndrome. Girls with TS have significantly lower estradiol and higher of FH and LH levels than normal age-matched prepubertal girls.

1083. A pregnant woman was diagnosed with hypothyroidism. Which of the following is the best treatment for her?

- A. Iodide
- B. Levothyroxine
- C. Propylthiouracil
- D. Thyroglobulin

Answer: B

Levothyroxine is the treatment of choice for hypothyroidism with the goal of normalizing serum TSH concentrations, using the pregnancy-specific reference intervals.

References:

http://www.medscape.com/viewarticle/814179_2

1084. A 26-year-old G3P0030 has had three consecutive spontaneous abortions in the first trimester. As part of an evaluation for this problem, which of the following tests is most appropriate in the evaluation of this patient?

- A. Chromosomal analysis of the couple
- B. Endometrial biopsy in the luteal phase

- C. Hysterosalpingogram
- D. Postcoital test

Answer: A

A major cause of spontaneous abortions in the first trimester is chromosomal abnormalities. The causes of losses in the second trimester are more likely to be uterine or environmental in origin. Patients should also be screened for thyroid function, diabetes mellitus, and collagen vascular disorders. There is also a correlation between patients with a positive lupus anticoagulant and recurrent miscarriages. For recurrent second-trimester losses, a hysterosalpingogram should be ordered to rule out uterine structural abnormalities, such as bicornuate uterus, septate uterus, or unicornuate uterus. Endometrial biopsy is performed to rule out an insufficiency of the luteal phase or evidence of chronic endometritis. A cervical biopsy would be of no value in the workup of recurrent pregnancy losses. A postcoital test is useful for couples who cannot conceive, but does not address postconception losses. Measuring the cervical length by ultrasonography is helpful in the management of patients with recurrent second-trimester losses caused by cervical incompetence.

1085. A 20-year-old female comes to the office with complaints that her menstruate cycle has not started yet. The woman is short-statured and has notably delayed breast development with webbing skin between the neck and shoulders. Which of the following would be seen in her blood analysis?

- A. Decreased FH
- B. Decreased LH
- C. Decreased estrogen
- D. Increased estrogen

Answer: C

This girl most likely has Turner syndrome. Girls with TS have significantly lower estradiol and higher of FH and LH levels than normal age-matched prepubertal girls. Reference:Uptodate.

1086. A 23-year-old G1P1 at 9 weeks gestation comes to the doctor with sudden onset of abdominal pain and vaginal bleeding. She denies passing anything beyond a small amount of blood. A pelvic examination

demonstrates a dilated 1cm cervix and some but not all products of conception. Which of the following best describes the most likely diagnosis?

- A. Complete abortion
- B. Incomplete abortion
- C. Missed abortion
- D. Threatened abortion

Answer: B

An incomplete abortion presents with vaginal bleeding, cervical dilation, and loss of some but not all products of conception. At less than 20 weeks gestation with minimal vaginal bleeding and a closed cervix in the setting of a normal fetal ultrasound is consistent with a threatened abortion. A missed abortion consists of an abnormal ultrasound suggesting fetal demise in the absence of vaginal bleeding or cervical dilation. An inevitable abortion presents with vaginal bleeding and cervical dilation, but no loss of products of conception. An abnormal ultrasound is also seen. A completed abortion presents with vaginal bleeding, cervical dilation, and total loss of products of conception. An abnormal ultrasound is also seen.

1087. At 43 weeks' gestation, a long, thin infant is delivered. The infant is apneic, limp, pale, bradycardic, and covered with "pea soup" amniotic fluid. Which of the following is the best first step in the resuscitation of this infant at delivery?

- A. Administration of 100% oxygen by mask
- B. Chest compressions
- C. Intubation and suction of the trachea; provision of oxygen
- D. Warm and dry the infant

Answer: C

Infants who are postdates (more than 42 weeks' gestation) and show evidence of chronic placental insufficiency (low birth weight for gestational age and wasted appearance) have a higher than average chance of being asphyxiated, and passage of meconium into the amniotic fluid places these infants at risk for meconium aspiration. Ideally the obstetrician suctions the mouth, nose, and hypopharynx immediately after delivery of the infant's head but before delivery of the remainder of the body. If the infant's heart rate is more than 100 beats per minute and respirations are unlabored, routine neonatal management is appropriate. However, if the heart rate is less than 100 beats per minute in a floppy, depressed infant then endotracheal intubation is accomplished along with suctioning and providing oxygen. Always consider airway, breathing, and circulation, in that order, before moving on.

1088. A 71-year-old female present with vaginal dryness, burning and dyspareunia. She also has dysuria and increased urinary frequency. The symptoms have been present for several months but have intensified recently. Physical examination shows scarce pubic hair and reduced elasticity and turgor of the vulvar skin. Pale, dry and smooth vaginal epithelium is noted. Urine dipstick is normal. Which of the following is treatment of choice for this patient?

- A. Clotrimazole vaginal cream
- B. Estrogen vaginal cream
- C. Metronidazole vaginal gel
- D. Topical corticosteroid cream

Answer: B

1. **Atrophic vaginitis** may present with vaginal itching, burning, pain, dryness, or dyspareunia.
2. In the absence of estrogen, the vaginal mucosa thins, has diminished blood supply and vaginal secretions, and there can be loss of connective tissues that provide pelvic support.
3. Treatment of the postmenopausal woman for atrophic vaginitis includes replacing estrogen, either orally or topically with vaginal creams.
4. Vaginal creams may help in alleviating local symptoms but do not provide enough systemic absorption to be relied on for the beneficial effects of estrogens on osteoporosis.
5. Oral estrogens must be used in concert with progesterone in order to avoid the risks of endometrial hyperplasia and cancer in women with an intact uterus.
6. Before providing oral estrogen therapy, careful consideration of the risks and benefits should be discussed with the patient. Potential risks include cardiovascular and venous thromboembolic disease as well as slight increased risk for both endometrial and breast cancer.
7. Topical corticosteroids, metronidazole gel, clotrimazole cream, and douching provide no benefit in treating atrophic vaginitis.

1089. A 23-year-old lady married since one year, is evaluated for infertility. She has regular cycles. Investigations revealed that her Graafian follicles reach to maturity but fail to ovulate. Which of the following hormonal treatment is indicated?

- A. Estrogen
- B. FSH
- C. LH
- D. Progestin
- E. TSH

Answer: C

LH is one of the hormones produced by the pituitary gland. Ordinarily, it's secreted at very low levels throughout your menstrual cycle. But once a developing egg follicle reaches a certain size — usually around the midpoint of your cycle — LH secretion surges to really high levels. This hormone surge is what triggers ovulation about 24 to 36 hours later. <https://www.healthline.com/health/pregnancy/lh-surge>

1090. Which of the following is the treatment of choice for labial adhesions?

- A. Oral erythromycin
- B. Oral estrogens
- C. Topical erythromycin
- D. Topical estrogens
- E. Topical progesterone

Answer: D

Labial fusion is a medical condition of the female genital anatomy where the labia minora become fused together. It is generally a pediatric condition. Treatment is not usually necessary in asymptomatic cases, since most fusions will separate naturally over time, but may be required when symptoms are present. The standard method of treatment for labial fusion is the application of topical estrogen cream onto the areas of adhesion, which is effective in 90% of patients. In severe cases where the labia minora are entirely fused, causing urinary outflow obstruction or vaginal obstruction, the labia should be separated surgically. Recurrence after treatment is common but is thought to be prevented by good hygiene practices. One study has shown that betamethasone may be more effective than estrogen cream in preventing recurrence, with fewer side effects.

1091. Which of the following is true about HELLP syndrome?

- A. Hemolysis, Elevated Liver enzymes, Low Platelet count
- B. Hemolysis, Low Liver enzymes, High Platelet count
- C. Hypertension, Elevated Liver enzymes, Low Platelet count
- D. Hypotension, Elevated Liver enzymes, Low Platelet count

Answer: A

1. **HELLP syndrome**, named for 3 features of the disease (hemolysis, elevated liver enzyme levels, and low platelet levels), is a life-threatening condition that can potentially complicate pregnancy.
2. HELLP syndrome is a potential manifestation of severe preeclampsia.
3. HELLP syndrome typically occurs between 27 weeks gestation and delivery in women with a mean age of 25 years.
4. Symptoms include: Right upper quadrant or epigastric pain & nausea or vomiting (30%-90% of patients) malaise, weight gain, and various other nonspecific symptoms

Risk factors for HELLP syndrome include the following:

1. Maternal age older than 34 years
2. Multiparity
3. History of poor pregnancy outcome

1092. A 50-year-old woman complains of leakage of urine. After stress urinary incontinence, which of the following is the most common cause of urinary incontinence?

- A. Functional incontinence
- B. Unstable urethra
- C. Urethral diverticulum
- D. Urge incontinence

Answer: D

Stress incontinence is the involuntary loss of urine when intravesical pressure exceeds the maximum urethral pressure in the absence of detrusor activity. The most common cause of urinary incontinence is incompetence of the urethral sphincter, termed stress urinary incontinence. The other major cause of incontinence is urge incontinence. With urge incontinence, the bladder leaks urine due to involuntary, uninhibited detrusor contractions of greater than 15 cm H₂O with simultaneous urethral relaxation. Other causes of urinary incontinence are less common and include overflow secondary to urinary retention, congenital abnormalities, infections, fistulas, and urethral diverticula. Urethral diverticula classically present with dribbling incontinence after voiding. Functional incontinence occurs when a patient cannot reach the toilet in time due to physical, cognitive, or psychological limitations.

1093. A 34-year-old woman presents with excessive hair growth, acne and no menses for 4 months. On physical examination, there is hair in the periareolar and linea alba region. There is also acanthosis nigricans in the posterior neck. Her laboratory findings show FSH=1.5 and LH= 10. Which of the following is the most likely diagnosis in this woman?

- A. Asherman syndrome
- B. Polycystic Ovary Syndrome
- C. Primary amenorrhea
- D. Sheehan Syndrome

Answer: B

in order to answer this q you have to know some basic information about PCOS: 1-symptoms: -amenorrhea or irregular menses, hirsutism & obesity, Acne, DM type2 2-diagnostic tests: -pelvic ultrasound:bilateral enlarge ovaries with multiple cysts -LH to FSH ratio more than 3:1 Source :master the board

1094. Which of the following is a correct definition of spontaneous abortion?

- A. Ending of pregnancy by removing a fetus or embryo before it can survive outside the uterus
- B. Fetal death at or after 20 to 28 weeks of pregnancy.
- C. Natural death of an embryo or fetus before it is able to survive independently
- D. Occurrence of multiple consecutive miscarriages

Answer: C

Miscarriage, also known as spontaneous abortion and pregnancy loss, is the natural death of an embryo or fetus before it is able to survive independently. Some use the cutoff of 20 weeks of gestation, after which fetal death is known as a stillbirth. The most common symptom of a miscarriage is vaginal bleeding with or without pain. Stillbirth is typically defined as fetal death at or after 20 to 28 weeks of pregnancy.

1095. At Seven weeks of pregnancy a lady comes with complaints of vaginal bleeding with tissue. Her cervix was open and you can see some product of conception. Her fundal height is equal to 7 to 8 weeks. Which of the following is the most likely diagnosis in this woman?

- A. Incomplete abortion
- B. Missed abortion
- C. Molar pregnancy
- D. Threatened abortion

Answer: A

This woman has incomplete abortion.

Table 13. Classification of Spontaneous Abortions			
Type	History	Clinical	Management (± Rhogam®)
Threatened	Vaginal bleeding ± cramping	Cervix closed and soft	Watch and wait <5% go on to abort
Inevitable	Increasing bleeding and cramps ± rupture of membranes	Cervix closed until products start to expel, then external os opens	a) Watch and wait b) Misoprostol 400-800 µg PO/PV c) D&C ± oxytocin
Incomplete	Extremely heavy bleeding and cramps ± passage of tissue noticed	Cervix open	a) Watch and wait b) Misoprostol 400-800 µg PO/PV c) D&C ± oxytocin
Complete	Bleeding and complete passage of sac and placenta	Cervix closed, bleeding stopped	No D&C – expectant management
Missed	No bleeding (fetal death in utero)	Cervix closed	a) Watch and wait b) Misoprostol 400-800 µg PO/PV c) D&C ± oxytocin
Recurrent	≥3 consecutive spontaneous abortions		Evaluate mechanical, genetic, environmental, and other risk factors
Septic	Contents of uterus infected – infrequent		D&C IV broad spectrum antibiotics

1096. Which of the following is a sign of fetal distress?

- A. Blood loss
- B. Early decelerations
- C. Late decelerations
- D. Various decelerations

Answer: C

Late decelerations begin at the peak of the uterine contraction and recover after the contraction ends. This type of deceleration indicates there is insufficient blood flow through the uterus and placenta. As a result blood flow to the foetus is significantly reduced causing fetal hypoxia and acidosis. The presence of late decelerations is taken seriously and fetal blood sampling for pH is indicated. If fetal blood pH is acidotic it indicates significant fetal hypoxia and the need for emergency C-section.

Generally it is preferable to describe specific signs in lieu of declaring fetal distress that include:

1. Decreased movement felt by the mother
2. Meconium in the amniotic fluid ("meconium stained fluid")
3. Non-reassuring patterns seen on cardiotocography:
 - Increased or decreased fetal heart rate (tachycardia and bradycardia), especially during and after a contraction
 - Decreased variability in the fetal heart rate
 - Late decelerations
 - Biochemical signs, assessed by collecting a small sample of baby's blood from a scalp prick through the open cervix in labor
 - Fetal metabolic acidosis
 - Elevated fetal blood lactate levels (from fetal scalp blood testing) indicating the baby has a lactic acidosis

References:

<https://geekymedics.com/how-to-read-a-ctg/>

<http://www.aafp.org/afp/1999/0501/p2487.html> Toronto notes 2017, OB34.

https://en.wikipedia.org/wiki/Lactic_acidosis

1097. A patient presents to you for evaluation of infertility. She is 26 years old and has never been pregnant. She and her husband have been trying to get pregnant for 2 years. Her husband had a semen analysis and was told that everything was normal. The patient has a history of endometriosis diagnosed by laparoscopy at age 17. At the time she was having severe pelvic pain and dysmenorrhea. After the surgery, the patient was told she had a few small implants of endometriosis on her ovaries and fallopian tubes and several others in the posterior cul-de-sac. She also had a left ovarian cyst, filmy adnexal adhesions, and several subcentimeter serosal fibroids. You have recommended that she should have a

hysterosalpingogram as part of her evaluation for infertility. Which of the patient's following conditions can be diagnosed with a hysterosalpingogram?

- A. Endometriosis
- B. Hydrosalpinx
- C. Ovarian cyst
- D. Serosal fibroids

Answer: B

A hysterosalpingogram is a procedure in which 3 to 6 mL of either an oil- or water-soluble contrast medium is injected through the cervix in a retrograde fashion to outline the uterine cavity and fallopian tubes. Spill of contrast medium into the peritoneal cavity proves patency of the fallopian tubes. By outlining the uterine cavity, abnormalities such as bicornuate or septate uterus, uterine polyps, or submucous myomas can be diagnosed, while tubal opacification allows identification of such conditions as salpingitis isthmica nodosum and hydrosalpinx. However, pelvic abnormalities outside the uterine cavity and fallopian tube (such as subserous fibroids, ovarian tumors, endometriosis, or minimal pelvic adhesions) are possibly not visible with this study, and hence a false-negative report could be generated. Some studies have shown a therapeutic effect resulting in an increased rate of pregnancy in the months immediately following the hysterosalpingogram.

1098. A 30-year-old G3P3 is being evaluated for urinary urgency, urinary frequency, and dysuria. She also complains of pain with insertion when attempting intercourse. She frequently dribbles a few drops of urine after she finishes voiding. She has had three full-term spontaneous vaginal deliveries. Her last baby weighed more than 9 lb. She recalls having had multiple sutures placed in the vaginal area after delivery of that child. She also has a history of multiple urinary tract infections since she was a teenager. On pelvic examination, she has a 1-cm tender suburethral mass. With palpation of the mass, a small amount of blood-tinged pus is expressed from the urethra. Which of the following is the most likely cause of this patient's problem?

- A. Urethral eversion
- B. Urethral fistula
- C. Urethral polyp
- D. Urethral stricture

Answer: D

Urethral diverticula occur in 3% to 4% of all women. The typical symptoms include urinary frequency, urgency, dysuria, hematuria, and dyspareunia. Frequently, patients will have a history of frequent UTIs, dribbling, or incontinence. A urethral diverticulum is often palpable as a mass on the anterior vaginal wall under the urethra. Although urethral polyps, eversion, fistula, and stricture may present with similar symptoms, there is no suburethral mass present.

1099. Which of the following is an absolute contraindication for breastfeeding?

- A. Active HIV
- B. Active hepatitis A
- C. Mastitis
- D. Smoking

Answer: A

Contraindicated if mother: is receiving chemotherapy or radioactive compounds; has HIV/AIDS, active untreated TB, herpes in breast region; is using >0.5 g/kg/d alcohol or illicit drugs; is taking medications known to cross to breast milk

Reference: Toronto Notes Agree, you have to know the list of contraindication Ref. revised from master the board

1100. A 32-year-old morbidly obese diabetic woman presents to your office complaining of prolonged vaginal bleeding. She has never been pregnant. Her periods were regular, monthly, and light until 2 years ago. At that time she started having periods every 3 to 6 months. Her last normal period was 5 months ago. She started having vaginal bleeding again 3 weeks ago, light at first. For the past week she has been bleeding heavily and passing large clots. On pelvic examination, the external genitalia is normal. The vagina is filled with large clots. A large clot is seen protruding through the cervix. The uterus is in the upper limit of normal size. The ovaries are normal to palpation. Her urine pregnancy test is negative. Which of the following is the most likely cause of her abnormal uterine bleeding?

- A. Cervical polyp

- B. Chronic anovulation
- C. Incomplete abortion
- D. Uterine fibroids

Answer: B

This patient presents an example of chronic anovulation in an older woman. She gives a classic history of changing from regular, monthly periods to irregular, infrequent episodes of vaginal bleeding. Patients with chronic anovulation often have underlying medical problems such as diabetes, thyroid problems, or polycystic ovarian syndrome. A patient with uterine fibroids may have heavy periods, but the regularity of the periods is not affected unless the patient has underlying ovulatory dysfunction. A cervical polyp would clearly be seen on physical examination and, like uterine fibroids, would not affect the timing of menstruation. Patients with cervical polyps often complain of bleeding between periods, usually provoked by sexual intercourse. Since the patient's pregnancy test is negative, she cannot have an incomplete abortion. Patients with coagulation defects have problems with heavy periods from the time of menarche.

1101. Intrauterine Device (IUD) is contraindicated in which of the following?

- A. Ectopic pregnancy
- B. Endometriosis
- C. Migraine headaches
- D. Unexplained vaginal bleeding

Answer: D

Absolute contraindications for IUD use include the following:

1. Pregnancy
2. Significantly distorted uterine anatomy
3. Unexplained vaginal bleeding concerning for pregnancy or pelvic malignancy
4. Gestational trophoblastic disease with persistently elevated beta-human chorionic gonadotropin levels
5. Ongoing pelvic infection

IUD use is safe in women with the following conditions:

1. History of an ectopic pregnancy
2. History of pelvic surgery
3. Hypertension or other forms of heart disease
4. History of deep venous thrombosis
5. History of migraine headaches
6. Anemia
7. Diabetes
8. Endometriosis
9. Smoking

1102. A 23-year-old woman presents for evaluation of a 7-month history of amenorrhea. Examination discloses bilateral galactorrhea and normal breast and pelvic examinations. Pregnancy test is negative. Which of the following classes of medication is a possible cause of her condition?

- A. Antiestrogens
- B. Gonadotropins
- C. Phenothiazines
- D. Prostaglandins

Answer: C

Amenorrhea and galactorrhea may be seen when something causes an increase in prolactin secretion or action. The differential diagnosis involves several possible causes. Excessive estrogens, such as with birth control pills, can reduce prolactin-inhibiting factor, thus raising serum prolactin level. Similarly, intensive suckling (during lactation and associated with sexual foreplay) can activate the reflex arc that results in hyperprolactinemia. Many antipsychotic medications, especially the phenothiazines, are also known to have mammotropic properties. Hypothyroidism appears to cause galactorrhea secondary to thyrotropin-releasing hormone (TRH) stimulation of prolactin release. When prolactin levels are persistently elevated without obvious cause (eg, in breastfeeding), evaluation for pituitary adenoma becomes necessary.

1103. A 44-year-old woman after the birth developed the temperature of the body to 38.5 ° C. She complains of general weakness, pain at the bottom of the abdomen. During the pelvic examination: the lochia is moderate, cloudy, with an unpleasant odor; the uterus - 4 cm below the umbilicus, soft, painful when palpated. In the general analysis of blood, expressed leukocytosis, pulmonary leukocytes - 23000/mL; ESR - 40 mm / h. Which of the following is the most likely diagnosis?

- A. Postpartum colpitis
- B. Postpartum endometritis
- C. Postpartum peritonitis
- D. Postpartum sepsis

Answer: B

Endometritis is inflammation of the endometrium, the inner lining of the uterus. Pathologists have traditionally classified endometritis as either acute or chronic: acute endometritis is characterized by the presence of microabscesses or neutrophils within the endometrial glands, while chronic endometritis is distinguished by variable numbers of plasma cells within the endometrial stroma. The most common cause of endometritis is infection. Symptoms include lower abdominal pain, fever and abnormal vaginal bleeding or discharge. Caesarean section, prolonged rupture of membranes and long labor with multiple vaginal examinations are important risk factors. Treatment is usually with broad-spectrum antibiotics.

1104. Which of the following is the most accurate test for primary syphilis?

- A. Dark field microscopy
- B. Lymph node biopsy
- C. RPR
- D. VDRL

Answer: A

Primary syphilis

1. Disease caused by the spirochete **Treponema pallidum** (only transmitted by sexual contact or from mother to child)
2. **Incubation period:** 6 weeks.
3. **Characterized** by painless chancre and painless lymphadenopathy.
4. Chancre is a well demarcated ulcer with indurated base, and it resolves spontaneously without scar formation.
5. **Dark field microscopy:** best initial test.
6. VDRL and rapid plasma regain (RPR) are 80% sensitive screening tests.
7. Fluorescent treponemal antibody absorption (FTA-ABS) or microhemag-glutination assay for antibodies to treponemes (MHA-TP) used to confirm diagnosis
8. **Treatment:** Penicillin is the drug of choice for all patients

1105. A 19-year-old girl is brought to the physician by her mother because she has not started to menstruate yet. Examination shows Tanner stage V breast development and pubic hair, normal external female genitalia, and shaved axillary hair. Which of the following is the most likely diagnosis?

- A. 5- α -reductase deficiency
- B. Complete androgen insensitivity syndrome
- C. Hypothalamic-pituitary failure
- D. Mullerian agenesis

Answer: D

Mullerian agenesis

1. 46 XX (no uterus)
2. Normal female phenotype Normal testosterone
3. They experience breast development and body hair grown at puberty but do not menstruate due to a congenitally absent or underdeveloped uterus, cervix, and upper vagina.
4. Normal pubic and axillary hair and female testosterone levels

1106. Which of the following is an average length of the umbilical cord?

- A. 125 cm
- B. 25 cm
- C. 40 cm
- D. 55 cm
- E. 80 cm

Answer: D

The cord length varied from 24 to 124 cm. The mean cord length is 63.86 cm (± 15.69 cm). Maximum cases seen were in the group of cord length between 51 and 60 cm.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3526711/>

1107. Which ligament is the most important ligament in preventing uterine prolapse?

- A. Broad
- B. Ovarian
- C. Round
- D. Uterosacral

Answer: D

The uterus (womb) is normally held in place by a hammock of muscles and ligaments. Prolapse happens when the ligaments supporting the uterus become so weak that the uterus cannot stay in place and slips down from its normal position. These ligaments are the round ligament, uterosacral ligaments, broad ligament and the ovarian ligament. The uterosacral ligaments are by far the most important ligaments in preventing uterine prolapse.

1108. A 36-year-old G2P2 presents for her well-woman examination. She has had two spontaneous vaginal deliveries without complications. Her largest child weighed 3500 g at birth. She uses oral contraceptive pills and denies any history of an abnormal Pap smear. She does not smoke, but drinks about four times per week. Her weight is 70 kg. Her vital signs are normal. After placement of the speculum, you note a clear cyst approximately 2.5 cm in size on the lateral wall of the vagina on the right

side. The cyst is nontender and does not cause the patient any dyspareunia or discomfort. Which of the following is the most likely diagnosis of this mass?

- A. Bartholin duct cyst
- B. Gartner duct cyst
- C. Hematoma
- D. Lipoma

Answer: B

Gartner duct cysts arise from embryonic remnants of the mesonephric duct that course along the lateral vaginal wall. These are usually small and asymptomatic and are found incidentally during a pelvic examination. They can be followed conservatively unless the patient becomes symptomatic, at which time excision is recommended. Inclusion cysts are usually seen on the posterior lower vaginal surface. Inclusion cysts are the most common vaginal cysts and result from birth trauma or previous gynecologic surgery. Bartholin duct cysts are the most common large cysts of the vulva. Bartholin ducts open into a groove between the hymen and labia minora on the posterior lateral vaginal opening. Lipomas are benign, encapsulated tumors of fat cells; they are most commonly discovered in the labia majora and are superficial in location. Hematomas of the vulva usually occur as a result of blunt trauma or straddle injury. Spontaneous hematomas can occur as a result of rupture of a varicose vein in pregnancy or the postpartum period.

1109. A 12-year-old female comes to the physician because of a vaginal discharge. The discharge started about 2 months ago and is whitish in color. There is no odor. The patient has no complaints of itching, burning, or pain. The patient started breast development at 9 years of age and her pubertal development has proceeded normally to this point. She has not had her first menses and she is not sexually active. She has no medical problems. Examination is normal for a 12-year-old female. Microscopic examination of the discharge shows no evidence of pseudohyphae, clue cells, or trichomonads. Which of the following is the most likely diagnosis ?

- A. Bacterial vaginosis
- B. Candida vulvovaginitis
- C. Physiologic leukorrhea
- D. Syphilis
- E. Trichomoniasis

Answer: C

Leukorrhea is a thick, whitish or yellowish vaginal discharge. There are many causes of leukorrhea, the usual one being estrogen imbalance. The amount of discharge may increase due to vaginal infection or STDs, and it may disappear and reappear from time to time. This discharge can keep occurring for years, in which case it becomes more yellow and foul-smelling. It is usually a non-pathological symptom secondary to inflammatory conditions of vagina or cervix. Leukorrhea can be confirmed by finding >10 WBC under a microscope when examining vaginal fluid. The term "physiologic leukorrhea" is used to refer to leukorrhea due to estrogen stimulation.

1110. A patient with fibromyoma of uterus (size= 5*6 cm) was delivered by ambulance with complaints of acute pain in the lower abdomen. Examination revealed positive symptoms of peritoneal irritation, high leukocytosis. Vaginal examination revealed that the uterus was enlarged corresponding to 9 weeks of pregnancy due to the fibromatous nodes, one of which was mobile and extremely painful. Which of the following is the best treatment for this woman?

- A. Antibacterial therapy
- B. Fractional diagnostic curettage of the uterine cavity
- C. Laparotomy
- D. MRI

Answer: C

This woman most likely has fibroid torsion. The best next step for this woman would be urgent laparotomy.

1111. A multipara pregnant woman comes with regular contractions. Suddenly she had spontaneous rupture of membrane and baby heart rate dropped from 140 to 80 beats per minute. Which of the following is the best type of anesthesia for this woman?

- A. Epidural anesthesia
- B. General anesthesia
- C. Pudendal nerve block
- D. Subdural anesthesia

Answer: B

The fetus is in acute distress. So urgent cesarean section should be used and because of emergency general anesthesia is indicated.

Reference : Toronto notes 2017 A27

1112. A 44-year-old pregnant woman is trying to choose chorionic villi sampling (CVS) versus amniocentesis for prenatal diagnosis due to her increased risk of having a child with a chromosomal anomaly. Which of the following is an advantage of amniocentesis over CVS?

- A. Amniocentesis can be performed earlier in pregnancy than CVS.
- B. Amniocentesis in any trimester is less painful than CVS.
- C. First-trimester amniocentesis has a lower complication rate than CVS.
- D. Mid-trimester amniocentesis has a lower complication rate than CVS.

Answer: D

CVS has many theoretical and practical advantages over amniocentesis, including its earlier performance and quicker results. It is performed as a transcervical catheter procedure the majority of the time; therefore, there are no needles and the procedure is painless. Suction terminations during the first trimester are safer than prostaglandin and other second-trimester techniques. However, CVS does have a somewhat higher complication rate. In the most experienced hands, mid-trimester genetic amniocentesis probably carries about a 1/300 risk and CVS probably has a 1/150 to 1/200 risk. Early or first-trimester amniocentesis has a complication rate higher than that for CVS, and has been shown to have an increased risk of talipes.

1113. A 7-year-old girl complains of a brown-green discharge on her underwear. She has no fever or labial tenderness and denies sexual contact. Her mother states that for the past 4 mo her daughter has been taking ballet classes and frequently uses douching. Which of the following is most likely diagnosis in this woman?

- A. Candida vaginitis
- B. Chlamydial vaginitis
- C. Gonorrhea
- D. Nonspecific vaginitis

E. *Treponema pallidum*

Answer: D

Bacterial vaginosis (BV) or nonspecific vaginitis is a disease of the vagina caused by excessive growth of bacteria. Common symptoms include increased vaginal discharge that often smells like fish. The discharge is usually white or gray in color. Burning with urination may occur. Healthy vaginal microbiota consists of species which neither cause symptoms or infections, nor negatively affect pregnancy. It is dominated mainly by *Lactobacillus* species. BV is defined by the disequilibrium in the vaginal microbiota, with a decline in the number of lactobacilli. While the infection involves a number of bacteria, it is believed that most infections start with *Gardnerella vaginalis* creating a biofilm, which allows other opportunistic bacteria to thrive. Risk factors include douching, new or multiple sex partners, antibiotics, and using an intrauterine device, among others.

1114. A 47-year-old woman has achieved a pregnancy via in vitro fertilization (IVF) using donor eggs from a 21-year-old woman and sperm from her 46-year-old husband. She has a sonogram performed at 6 weeks gestational age that shows a twin pregnancy. A subsequent sonogram at 12 weeks shows a 5-mm nuchal fold is discovered in one of the embryos. Implications of this include which of the following?

- A. If the nuchal translucency resolves, the risk of a chromosome abnormality is comparable to that of other embryos
- B. Such a nuchal fold is normal and there are no implications to the fetus
- C. The embryo has a high risk of a cardiac malformation
- D. The embryo has a high risk of a neural tube defect
- E. The embryo has an abnormal karyotype with the most likely diagnosis of Turner syndrome.

Answer: C

It has been shown in numerous studies that nuchal translucency measured between 10 and 13 weeks is a useful marker for increased risk of chromosome abnormalities such as, but not limited to, Down syndrome. The larger the nuchal translucency, the greater the risk of other adverse pregnancy outcomes, including fetal demise, cardiac abnormalities, and other genetic syndromes, even if the karyotype is normal. The nuchal translucency will almost always disappear by 15 weeks; this does not reduce the risk of there being an aneuploid condition, although cystic hygromas in the second trimester are primarily associated with Turner syndrome. In the first trimester, nuchal translucencies most likely indicate Down syndrome, followed by trisomy 18, and then Turner syndrome.

1115. A 48-year-old woman presents to your office with the complaint of vaginal dryness during intercourse. She denies any medical problems or prior surgeries and does not take any medications. She still has regular menstrual cycles every 28 days. She denies any sexually transmitted diseases. She describes her sexual relationship with her husband as satisfying. Her physical examination is normal. Components of the natural lubrication produced by the female during sexual arousal and intercourse include which of the following?

- A. Fluid from Skene glands
- B. Mucus produced by endocervical glands
- C. Transudate-like material from the vaginal walls
- D. Viscous fluid from Bartholin glands

Answer: C

Masters and Johnson observed a transudate-like fluid emanating from the vaginal walls during sexual response. This mucoid material, which is sufficient for complete vaginal lubrication, is produced by transudation from the venous plexus surrounding the vagina and appears seconds after the initiation of sexual excitement. No activity by Skene glands was noted, and production of cervical mucus during sexual stimulation was observed in only a few subjects. Fluid from Bartholin glands appears long after vaginal lubrication is well established; in addition, it appears to make only a minor contribution to lubrication in the late plateau phase. Uterine and tubal secretions do not contribute to this lubrication.

1116. Which of the following is the treatment of choice for stress incontinence?

- A. Alpha blockers
- B. Oxybutynin
- C. Pelvic muscle exercises
- D. Propranolol

Answer: C

1. Stress incontinence is a very common in middle-age women who have had many pregnancies and vaginal deliveries. They leak small amounts of urine whenever intra-abdominal pressure suddenly increases (e.g. coughing, sneezing, laughing or lifting a heavy object)
2. Pressure on the bladder with an enlarging uterus frequently results in an involuntary loss of urine.
3. Diagnosis is usually based on the history and physical examination showing evidence of pelvic floor weakness such as uterine prolapse and or cystocele.
4. Management is strengthening the pelvic diaphragm with Kegel exercises.

1117. Which of the following is an independent risk factor that will increase the risk of infant getting an early GBS infection?

- A. Delivery at 38 weeks of pregnancy
- B. Family history of infant with GBS
- C. Intrapartum fever >39
- D. Premature rupture of membranes for more than 18 hours

Answer: D

Some pregnant women are at an increased risk of having a baby who develops early-onset group B strep disease. Some risk factors include:

- Testing positive for group B strep bacteria late in the current pregnancy (35-37 weeks pregnant)
- Detecting group B strep bacteria in urine (pee) during the current pregnancy
- Delivering early (before 37 weeks of pregnancy)
- Developing a fever during labor
- Having a long time between water breaking and delivering (18 hours or more)
- Having a previous baby who developed early-onset disease

1118. What is the best time to estimate the chorionicity of the twins on ultrasound?

- A. 1-2 weeks.
- B. 10-13 weeks.
- C. 3-5 weeks.
- D. 5-7 weeks.

Answer: B

Assessment of chorionicity: Ultrasonography is an effective prenatal tool for determining amnionicity and chorionicity. The optimal time for performing the ultrasound examination is in the first trimester after 7 weeks (sensitivity ≥ 98 percent), with lower but acceptable accuracy in the early second trimester.

The first trimester is generally considered to be the ideal time to confirm or establish accurate gestational age dating, and it is statistically superior to second trimester dating.

Reference: <http://www.uptodate.com/contents/twin-pregnancy-prenatal-issues>

Reference: <http://sogc.org/wp-content/uploads/2013/01/gui260CPG1106E.pdf>

1119. A 21-year-old female patient complains of depression, poor sleep quality, and breast tenderness. These symptoms occur on a monthly basis, about 2 weeks before menstruation. Her symptoms greatly improve with menses. Which of the following is the best treatment for this woman?

- A. Clonazepam
- B. Clonidine
- C. Fluoxetine
- D. Haloperidol

Answer: C

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding.

Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Often symptoms are present for around six days. A woman's pattern of symptoms may change over time. Symptoms do not occur during pregnancy or following menopause.

Antidepressants SSRIs like fluoxetine, sertraline can be used to treat severe PMS. Women with PMS may be able to take medication only on the days when symptoms are expected to occur. Although intermittent therapy might be more acceptable to some women, this might be less effective than continuous regimens.

1120. A woman presented with complaints of whitish vaginal discharge without the foul smell. The wet mount showed pseudohyphae. Which of the following is the best treatment for this woman?

- A. Ampicillin
- B. Ceftriaxone
- C. Metronidazole
- D. Topical miconazole

Answer: D

Candidiasis is a fungal infection due to any type of *Candida* (a type of yeast). When it affects the mouth, it is commonly called thrush. Signs and symptoms include white patches on the tongue or other areas of the mouth and throat. Other symptoms may include soreness and problems swallowing. When it affects the vagina, it is commonly called a yeast infection. Signs and symptoms include genital itching, burning, and sometimes a white "cottage cheese-like" discharge from the vagina. Less commonly the penis may be affected, resulting in itchiness.

Candidal skin infections in the skin folds (candidal intertrigo) typically respond well to topical antifungal treatments (e.g., nystatin or miconazole). Systemic treatment with antifungals by mouth is reserved for severe cases or if treatment with topical therapy is unsuccessful.

Ref: <https://www.cdc.gov/std/tg2015/candidiasis.htm>

1121. A 14-year-old girl comes to the office for a health maintenance evaluation. She is concerned that she has not yet started her menstrual cycle. Her height has increased by 3 inches since her last visit 1 year ago, and her weight is up by 10 pounds. On physical examination, the physician notes a general enlargement of her breasts and areola. Examination of her genital area reveals pubic hair that is coarse and dark and extends past the medial border of the labia. Which of the following is the most likely diagnosis ?

- A. Dysfunctional uterine bleeding
- B. Dysmenorrhea
- C. Normal development
- D. Primary amenorrhea
- E. Secondary amenorrhea

Answer: C

This girl has normal development. Primary amenorrhea is when there are no menses more than 14-years-old without secondary sexual development or more than 16-years-old with secondary sexual development. Secondary amenorrhea is when the menses was previously. Dysmenorrhea is pain during menses. And dysfunctional uterine bleeding is irregular uterine bleeding.

1122. The shortest distance between the sacral promontory and the symphysis pubis is called which of the following?

- A. Diagonal conjugate
- B. Interspinous diameter
- C. Obstetric (OB) conjugate
- D. True conjugate

Answer: C

The obstetric conjugate is the shortest distance between the promontory of the sacrum and the symphysis pubis. It generally measures 10.5 cm. Because the obstetric conjugate cannot be clinically measured, it is estimated by subtracting 1.5 to 2 cm from the diagonal conjugate, which is the distance from the lower margin of the symphysis to the sacral promontory. The true conjugate is measured from the top of the symphysis to the sacral promontory. The interspinous diameter is the transverse measurement of the midplane and generally is the smallest diameter of the pelvis. The biparietal diameter is the transverse diameter of the fetal skull measured from the prominence of one parietal bone to the other.

1123. A 25-year-old female comes with complaints of white vaginal discharge with fishy odor. During the application of KOH to the vaginal discharge appeared amine odor. What is the most appropriate treatment for this woman?

- A. Ampicillin
- B. Ceftriaxone
- C. Fluconazole
- D. Metronidazole

Answer: D

The patient most likely has bacterial vaginosis caused by *Gardnerella vaginalis*. Thin white/grayish vaginal discharge with fishy odor is typical for this disease. Also, this patient has a positive Whiff test (appearing amine odor after adding KOH to vaginal discharge) which confirms the diagnosis. The best treatment for bacterial vaginosis is clindamycin with metronidazole for 7 days.

1124. Which of the following is the leading cause of cancer death among women?

- A. Breast cancer
- B. Colorectal cancer
- C. Lung cancer
- D. Skin cancer

Answer: C

Leading Causes of Cancer Death Among Women:

Lung cancer (34.7) First among white, black, Asian/Pacific Islander, and American Indian/Alaska Native women. Second among Hispanic* women.

Breast cancer (20.5) First among Hispanic* women. Second among white, black, Asian/Pacific Islander, and American Indian/Alaska Native women.

Colorectal cancer (11.9) Third among women of all races and Hispanic* origin populations.

1125. A previously healthy full-term infant has several episodes of duskeness and apnea during the second day of life. Diagnostic considerations should include which of the following?

- A. Congenital heart disease
- B. Hemolytic anemia
- C. Hyperglycemia
- D. Idiopathic apnea

Answer: A

Idiopathic apnea is common in premature infants but is not expected in the full-term newborn. When apnea occurs in the term infant, there is almost always an identifiable cause. Sepsis, gastroesophageal reflux, congenital heart disease, seizures, RSV, hypoglycemia, central hypoventilation (Ondine's curse), and airway obstruction can all cause apnea in term newborns. Harlequin syndrome is a transient change in the skin color of the otherwise asymptomatic newborn (usually preterm) in which the dependent side of the entire body turns red while the upper side remains pale.

1126. A 19-year-old G1P0 presents to her obstetrician's office for a routine OB visit at 32 weeks gestation. Her pregnancy has been complicated by gestational diabetes requiring insulin for control. She has been noncompliant with diet and insulin therapy. She has had two prior normal ultrasound examinations at 20 and 28 weeks gestation. She has no other significant past medical or surgical history. During the visit, her fundal height measures 38 cm. Which of the following is the most likely explanation for the discrepancy between the fundal height and the gestational age?

- A. Breech presentation
- B. Fetal hydrocephaly
- C. Polyhydramnios
- D. Uterine fibroids

Answer: C

The fundal height in centimeters has been found to correlate with gestational age in weeks with an error of 3 cm from 16 to 36 weeks. Uterine fibroids, polyhydramnios (excessive amniotic fluid), fetal macrosomia, and twin gestation are all plausible explanations of why the uterine size would measure larger than expected for the patient's dates. Breech presentation does not cause the uterus to be larger than expected for the gestational age. Since this patient has had two prior ultrasound examinations, hydrocephaly, fibroids, and twins would have previously been diagnosed. In this uncontrolled diabetic, the most likely cause for the excessive fundal height is polyhydramnios. Polyhydramnios is an excessive amount of amniotic fluid and is a sign of poor glucose control.

1127. A 32-year-old G2P2 develops fever and uterine tenderness 1 day after cesarean delivery for nonreassuring fetal heart tones. She started on broad-spectrum antibiotics. On postoperative day 4, the patient remains febrile and symptomatic with abdominal and pelvic tenderness. Her lung and cardiovascular exams are normal and she has no costovertebral angle tenderness. She is successfully breast-feeding and her breast examination is normal. Computed tomography (CT) of the abdomen shows a small bladder flap hematoma. What is the next best step in the management of this patient?

- A. CT-directed needle drainage of hematoma
- B. Continued treatment with antibiotics
- C. Exploratory laparotomy and drainage of hematoma
- D. Hysterectomy

Answer: B

In patients with endometritis who continue to spike fevers while receiving adequate broad-spectrum antibiotic coverage, parametrial phlegmon (pelvic cellulitis) should be suspected. In women with phlegmon, continued treatment with broad-spectrum antibiotics usually results in clinical improvement. Most are afebrile in 5 to 7 days. CT imaging can be done to rule out pelvic abscesses which if present should be drained. Bladder flap hematomas are commonly identified on imaging after cesarean delivery and require no treatment unless abscess is suspected. Hysterectomy is reserved for women in whom uterine necrosis is suspected. IV heparin has been used by some as a treatment along with antibiotics for septic pelvic thrombophlebitis, however it does not hasten or improve recovery.

1128. A healthy 25-year-old G1P0 at 37 weeks gestational age comes to your office to see you for a routine obstetric (OB) visit. The patient complains to you that on several occasions she has experienced dizziness, light-headedness, and feeling as if she is going to pass out when she lies down on her back to take a nap. What is the most appropriate plan of management for this patient?

- A. Do an arterial blood gas analysis.
- B. Do an electrocardiogram.
- C. Monitor her for 24 hours with a Holter monitor to rule out an arrhythmia.
- D. Reassure her and encourage her not to lie flat on her back.

Answer: D

Late in pregnancy, when the mother assumes the supine position, the gravid uterus compresses the inferior vena cava and decreases venous return to the heart. This results in decreased cardiac output and symptoms of dizziness, light-headedness, and syncope. This significant arterial hypotension resulting from inferior vena cava compression is known as supine hypotensive syndrome or inferior vena cava syndrome. Therefore, it is not recommended that women remain in the supine position for any prolonged period of time in the latter part of pregnancy. When patients describe symptoms of the supine hypotensive syndrome, there is no need to proceed with additional cardiac or pulmonary workup.

1129. A 24-year-old married woman comes to the office with complaints of regular heavy menses and pain for 9 months. On examination, there is a nodule in the cervix, which is tender. Which of the following is the most likely diagnosis in this woman?

- A. Cervical cancer
- B. Endometriosis
- C. Fibroid
- D. Vaginal cancer

Answer: C

Uterine myomas (fibroid) are benign but can cause infertility or menorrhagia. Bleeding: Longer, heavier periods; anemia. Pressure: Pelvic pressure and bloating; constipation and rectal pressure; urinary frequency or retention. Pain: 2° dysmenorrhea, dyspareunia. Pelvic symptoms: A firm, nontender, irregular enlarged ("lumpy-bumpy"), or cobblestone uterus may be seen. Reference: First Aid USMLE Step 2 CK 2014, page 380 <http://www.fibroidsecondopinion.com/fibroid-symptoms/> <http://www.fibroidsecondopinion.com/fibroid-symptoms/>

1130. A 24-year-old woman presents to the physician with primary amenorrhea. Examination shows normal breast development and minimal axillary and pubic hair. Her external genitalia appears normal but the vagina is short and the cervix is not visible. Bimanual examination confirms the absence of a uterus and cervix and the ovaries are not palpable. Which of the following is the mode of inheriting the disease in the woman?

- A. Autosomal dominant
- B. Autosomal recessive
- C. Mitochondrial
- D. X-linked

Answer: D

Androgen Insensitivity Syndrome

1. It is X-linked disorder
2. It is due to defect in androgen receptor gene
3. All infants are 46, XY
4. All infants have testes and normal testosterone levels

Clinical presentation

1. Infant is phenotypically female at birth
 2. Most infants raised as female and identify with female gender
 3. External genitalia are female and the vagina ends in a blind pouch
 4. No uterus
 5. Fallopian tubes may or may not be present
 6. Testes are usually intra-abdominal
 7. At puberty breast develop normally
 8. No menses
 9. Sexual hair does not appear
 10. Normal male adult height
 11. Testosterone may be normal or high
- 167.

1131. A 34-year-old African woman comes to the office with abnormal uterine bleeding. She reports irregular spotting between periods and pain with intercourse. Physical exam reveals a mobile, asymmetric, a nontender uterus with multiple nodular abnormalities. A transvaginal ultrasound shows intramural fibroids. She does not want any more children but wants to remove these symptoms. Which of the following is the best treatment for this patient?

- A. Hysterectomy
- B. Levonorgestrel intrauterine system
- C. Partial myomectomy
- D. hysteroscopy and D&C

Answer: A

This woman has leiomyoma (fibroids). The best treatment option for a symptomatic woman with fibroids who doesn't want to have children is a hysterectomy.

1132. A term infant is born to a known HIV-positive mother. She has been taking antiretroviral medications for the weeks prior to the delivery of her infant. Routine management of the healthy infant should include which of the following?

- A. A course of zidovudine for the infant
- B. Admission to the neonatal intensive care unit for close cardiovascular monitoring
- C. Chest radiographs to evaluate for congenital *Pneumocystis carinii*
- D. HIV ELISA on the infant to determine if congenital infection has occurred

Answer: A

The transmission of HIV from mother to infant has decreased in recent years, due in large part to perinatal administration of antiretroviral medications to the mother and a course of zidovudine to the exposed infant. Studies suggest that a better than 50% decrease in transmission can be seen with appropriate medications as outlined. IVIG has not been shown to have a role in decreasing perinatal transmission. Healthy asymptomatic term infants born to HIV-infected mothers do not need special monitoring, nor do they need routine radiographs. An HIV ELISA is an antibody test and will be positive in the infant born to an HIV-infected mother due to maternal antibodies that are passed through the placenta; it is not a useful test in the newborn infant to determine neonatal infection because of this expected transfer of maternal (and not infant) immunoglobulin. The confirmatory Western blot also assays for antibodies to HIV and is similarly unhelpful in the newborn period.

1133. A 28-years old pregnant lady with tubal pregnancy, Which one of the following is NOT risk factor of ectopic pregnancy?

- A. Pelvic inflammatory disease
- B. Previous induced abortion
- C. Previous pregnancy (ectopic)
- D. Smoking
- E. Tubal surgery

Answer: B

Risk factors for ectopic pregnancies include: pelvic inflammatory disease, infertility, use of an intrauterine device (IUD), previous exposure to DES, tubal surgery, intrauterine surgery (e.g. D&C), smoking, previous ectopic pregnancy, endometriosis, and tubal ligation. A previous induced abortion does not appear to increase the risk.

1134. Which of the following is ovarian cancer tumor marker ?

- A. AFP
- B. CA-125
- C. CEA
- D. PSA

Answer: B

CA-125 is the most frequently used biomarker for ovarian cancer detection. Carcinoembryonic antigen (CEA) is a glycoprotein associated with many cancers including adenocarcinomas of the colon, pancreas, lung, stomach, and breast. Alfa-fetoprotein (AFP) is a glycoprotein synthesized by the yolk sac and the fetal liver and is associated with yolk sac tumors of the testes and liver cell carcinomas. Prostatespecific antigen (PSA) is associated with cancer of the prostate.

1135. A 32-year-old woman comes to the doctor with severe pain during sexual intercourse. She also complains of dysmenorrhea, and pain with defecation. She and her husband have had frequent unprotected sexual intercourse for over a year. Which of the following is the treatment of choice for this patient?

- A. IV estrogen
- B. Oral contraceptive
- C. Pelvic muscle exercises
- D. Urethropexy

Answer: B

1. Endometriosis is defined as the presence of normal endometrial mucosa (glands and stroma) abnormally implanted in locations other than the uterine cavity. 2. Can be found anywhere; most common sites are ovary (frequently bilateral), pelvis, peritoneum. In ovary, appears as endometrioma (blood-filled "chocolate cyst"). 3. Characterized by cyclic pelvic pain, bleeding, dysmenorrhea, dyspareunia, dyschezia (pain with defecation), infertility; normal-sized uterus. 4. Laparoscopy is the gold standard for the diagnosis of endometriosis. 5. Treatment: NSAIDs, OCPs, progestins, GnRH agonists, danazol, laparoscopic removal. 6. Oral contraceptive pills are first line agents in the treatment of endometriosis in young women desiring future fertility.

1136. Which of the following is the most important risk factor for leiomyomas (fibroids)?

- A. African race
- B. Age
- C. Multipara
- D. Smoking

Answer: A

African women are 2-3 times more likely to present with symptomatic uterine fibroids and typically will do so at a younger age than the rest of the population of women with uterine fibroids. Other risk factors are: age, obesity, family history, childless, early onset of menstruation, and late age of menopause. Note: smoking and multipara are protective against fibroid. http://www.nuff.org/health_riskfactors.htm

1137. A 19-year-old nulliparous woman at 12 weeks comes to the doctor with complaints of pain with urination, and she reports that she has been urinating much more frequently than usual over the past several days. Urinalysis shows increased leukocyte esterase, elevated nitrites, 110 leukocytes/hpf, and bacteria. Which of the following is the most appropriate treatment for this patient?

- A. Aminoglycoside
- B. Amoxicillin
- C. Doxycycline
- D. Metronidazole

Answer: B

Urinary tract infections (UTIs) are common in pregnancy.

UTIs are associated with risks to both the fetus and the mother, including pyelonephritis, preterm birth, low birth weight, and increased perinatal mortality.

Pyelonephritis is the most common urinary tract complication in pregnant women, occurring in approximately 2% of all pregnancies.

In most cases of bacteriuria and urinary tract infection (UTI) in pregnancy, the prognosis is excellent.

Safe and Recommended

1. Amoxicillin
2. Amoxicillin-clavulanate
3. Nitrofurantoin
4. Cephalexin

Contraindicated

1. Fluoroquinolones e.g ciprofloxacin , levofloxacin
2. Tetracycline e.g Doxycycline
3. Trimethoprim-sulfamethoxazole e.g Bactrim

1138. A 47-year-old woman presents to your office with heavy bleeding. She is a nonsmoker. Which of the following is the treatment of choice for dysfunctional uterine bleeding?

- A. Dilation and curettage
- B. Hysterectomy
- C. Oral contraceptive pill
- D. Reassurance

Answer: C

1. Dysfunctional uterine bleeding (DUB) refers to heavy vaginal bleeding that occurs in the absence of structural or organic disease.
2. After menarche and before menopause it is considered physiologic.
3. DUB is the most common cause of abnormal uterine bleeding.
4. Due to its benign nature, it is a diagnosis of exclusion.
5. The most common cause of dysfunctional uterine bleeding (DUB) in adolescent women is anovulation.
6. DUB is treated with cyclic progestin therapy from day 14 – 25 of each cycle or by daily combination OCPs.
7. Cases not controlled by hormonal therapy may undergo endometrial ablation or hysterectomy.
8. In cases of uncontrolled bleeding, IV estrogen is the drug of choice for, to suppress the bleeding, and to ensure cardiovascular stability.

1139. A 20-year-old G1P0 presents to your clinic for follow-up for a suction dilation and curetiage for an incomplete abortion. She is asymptomatic without any vaginal bleeding, fever, or chills. Her examination is normal. The pathology report reveals trophoblastic proliferation and hydropic degeneration with the absence of vasculature; no fetal tissue is identified. A chest x-ray is negative for any evidence of metastatic disease. Which of the following is the best next step in her management?

- A. Combination chemotherapy
- B. Hysterectomy
- C. Single-agent chemotherapy
- D. Weekly human chorionic gonadotropin (hCG) titers

Answer: D

The condition of women who have hydatidiform moles but no evidence of metastatic disease should be followed routinely by hCG titers after uterine evacuation. Most authorities agree that prophylactic chemotherapy should not be employed in the routine management of women having hydatidiform moles because 85% to 90% of affected patients will require no further treatment. For a young woman in whom preservation of reproductive function is important, surgery is not routinely indicated.

1140. A 25-year-old female at 15 weeks is complaining of palpitations, anxiety, and heat intolerance. An ECG shows sinus tachycardia with a rate of 110 beats/minute. Which of the following is the treatment of choice during her pregnancy?

- A. Iodine
- B. Partial thyroidectomy
- C. Propothiouracil
- D. Radioactive iodine

Answer: C

1. **Hyperthyroidism** is characterized by hypermetabolism and elevated serum levels of free thyroid hormones.
2. Many common symptoms of hyperthyroidism are similar to those of adrenergic excess, such as nervousness, palpitations, hyperactivity, increased sweating, heat hypersensitivity, fatigue, increased appetite, weight loss, insomnia, weakness, and frequent bowel movements (occasionally diarrhea). Hypomenorrhea may be present.
3. **Signs** may include warm, moist skin; tremor; tachycardia; widened pulse pressure and atrial fibrillation.
4. **Diagnosis** is clinical and with thyroid function tests. Treatment depends on cause.
5. Hyperthyroidism is often treated with antithyroid drugs in pregnancy.
6. Propylthiouracil is recommended to be used during the first trimester and switch to methimazole is recommended thereafter to reduce risk of hepatotoxicity.
7. This patient is symptomatic and should be treated with PTU or methimazole.
8. A low-dose beta-blocker could also be used to control symptoms until the PTU is effective.
9. Radioactive iodine is not safe in pregnancy and is contraindicated.
10. Iodine may cause goiter in the neonate.

1141. A 44-years-old woman comes with symptoms of white, cheesy, vaginal discharge. She has diabetes mellitus type I. Microscopy with KOH shows pseudohyphae. Which of the following is the biggest risk factor for the development of this disease?

- A. Bacterial vaginosis
- B. Trichomoniasis
- C. Yeast vaginitis
- D. Zygomycosis

Answer: C

This woman most likely has candidiasis based on microscopy findings with 10%KOH which shows pseudohyphae. The vaginal discharge caused by *Candida* is white, cheesy. Factors that increase the risk of candidiasis include HIV/AIDS, mononucleosis, cancer treatments, steroids, stress, antibiotic usage, diabetes, and nutrient deficiency. Reference: First Aid USMLE Step 2 CK 2014, page 376

1142. Which of the following is the treatment of choice for candida vaginitis?

- A. Amoxicillin
- B. Doxycycline
- C. Fluconazole
- D. Oral nystatin

Answer: C

1. *Candida* vaginitis is not considered a sexually transmitted disease and occurs in presence of risk factors
2. such as diabetes mellitus, oral contraceptive pills, pregnancy and immunosuppressive therapy.
3. Pseudohyphae are characteristically seen on wet mount preparations of vaginal discharge from patients with *Candida* vulvovaginitis.
4. Symptomatic patients are treated with an azole antifungal e.g fluconazole.
5. Sexual partner do not require treatment.

1143. A 38-year-old G1P0 presents to the obstetrician's office at 37 weeks gestational age complaining of a rash on her abdomen that is becoming increasingly pruritic. The rash started on her abdomen, and the patient notes that it is starting to spread downward to her thighs. The patient reports no previous history of any skin disorders or problems. She denies any malaise or fever. On physical examination, she is afebrile and her physician notes that her abdomen, and most notably her stretch marks, is covered with red papules and plaques. No excoriations or bullae are present. The patient's face, arms, and legs are unaffected by the rash. Which of the following is this patient's most likely diagnosis?

- A. Herpes gestationis

- B. Intrahepatic cholestasis of pregnancy
- C. Prurigo gravidarum
- D. Pruritic urticarial papules and plaques of pregnancy

Answer: D

Pruritic urticarial papules and plaques of pregnancy (PUPPP) is the most common dermatologic condition of pregnancy. It is more common in nulliparous women and occurs most often in the second and third trimesters of pregnancy. PUPPP is characterized by erythematous papules and plaques that are intensely pruritic and appear first on the abdomen. The lesions then commonly spread to the buttocks, thighs, and extremities with sparing of the face. Herpes gestationis is a blistering skin eruption that occurs more commonly in multiparous patients in the second or third trimester of pregnancy. The presence of vesicles and bullae help differentiate this skin condition from PUPPP. Prurigo gestationis is a very rare dermatosis of pregnancy that is characterized by small, pruritic excoriated lesions that occur between 25 and 30 weeks. The lesions first appear on the trunk and forearms and can spread throughout the body as well. In cases of intrahepatic cholestasis of pregnancy, bile acids are cleared incompletely and accumulate in the dermis, which causes intense itching. These patients develop pruritus in late pregnancy; there are no characteristic skin changes or rashes except in women who develop excoriations from scratching. Impetigo herpetiformis is a rare pustular eruption that forms along the margins of erythematous patches. This skin condition usually occurs in late pregnancy. The skin lesions usually begin at points of flexure and extend peripherally; mucous membranes are commonly involved. Patients with impetigo herpetiformis usually do not have intense pruritus, but more commonly have systemic symptoms of nausea, vomiting, diarrhea, chills, and fever.

1144. Which of the following is an embryonic origin of fallopian tubes?

- A. Ectoderm
- B. Endoderm
- C. Mesoderm
- D. Neural crest cells

Answer: C

Paramesonephric ducts (or Müllerian ducts) are paired ducts of the embryo that run down the lateral sides of the urogenital ridge and terminate at the sinus tubercle in the primitive urogenital sinus. In the female, they will develop to form the uterine tubes, uterus, cervix, and the upper one-third of the vagina; in the male, they are lost. These ducts are made of tissue of mesodermal origin.

1145. Single female came to your clinic one day after condom rupture during vaginal intercourse, she is worried about becoming pregnant. What you will do?

- A. Give post-coital contraception
- B. Give progesterone only contraception
- C. Pregnancy test
- D. Wait and arrange for appointment after one week

Answer: A

EMERGENCY CONTRACEPTION,

Hormonal EC (Yuzpe or Plan B, usually 2 doses taken 12 h apart) or post-coital IUD insertion;

Hormonal EC is effective if taken within 72 h of unprotected intercourse (reduces chance of pregnancy by 75-85%), most effective if taken within 24 h, does not affect an established pregnancy;

Post-coital IUDs inserted within 5 d of unprotected intercourse are significantly more effective than hormonal EC (reduces chance of pregnancy by ~99%);

Yuzpe® method = 98% (within 24 h), decreases by 30% at 72 h;

Plan B® levonorgestrel only= 98% (within 24 h), decreases by 70% at 72 h;

Reference: First Aid for the OBGYN clerkship, page 201, 3rd edition

1146. What changes will occur during pregnancy?

- A. Increase Functional residual capacity
- B. Increase Residual Volume
- C. Increase tidal volume
- D. Increase total lung capacity

Answer: C

In pregnancy TLC (total lung capacity), FRC (Functional residual capacity), RV (Residual Volume) are decreased and VC, FEV not changed; -Tidal volume increases in 30-40%

One measurement to consider is minute ventilation, which is the product of tidal volume and respiratory rate. In the pregnant patient, minute ventilation is increased due to a progesterone-stimulated increase in tidal volume. Respiratory rate generally remains unchanged.

References:

Toronto notes 2017, OB3.

http://www.medscape.com/viewarticle/722310_3

https://www.openanesthesia.org/pregnancy_lung_volumes/

<https://patient.info/doctor/physiological-changes-in-pregnancy>

1147. A 30-year-old woman presents to the physician with a grayish, foul-smelling discharge. A saline wet mount examination reveals numerous epithelial cells coated with bacteria.

Which of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Chlamydia
- C. Trichomoniasis
- D. Yeast infection

Answer: A

1. Bacterial vaginosis typically presents with minimal to absent vaginal inflammation and a discharge (pH >4.5) that is thin, off-white in color, and has a "fishy" odor.

2. Thin, gray-white vaginal discharge

3. "Clue cells" (vaginal epithelial cells with adherent coccobacilli) on wet mount

4. The treatment of choice for Bacterial Vaginosis in a pregnant lady is clindamycin cream (not orally) or metronidazole cream.

1148. A 25-year-old G1P0 presents to your office for a routine return OB visit at 30 weeks. On listening to the fetal heart tones, you notice that the patient has a number of bruises on the abdomen. You ask the patient what happened, and she tells you the bruises resulted from a fall she suffered several days earlier, when she slipped on the stairs. The patient returns to your office 3 weeks later for another routine visit, and you note that she has a broken arm in a cast. She states that she fell again. You question her about physical abuse and the patient begins crying and reveals a long-standing history of abuse by her husband. Which of the following is the most likely reason for upper extremity injury in this patient?

- A. Defensive injury
- B. Fall from being pushed
- C. Injury from being restrained
- D. Injury related to striking back at her husband

Answer: A

The most common sites of injury are the head, neck, chest, abdomen, breast, and upper extremities. An upper extremity may be fractured as the woman attempts to defend herself. Intimate partner violence occurs to 7 to 20% of pregnant women and doctors should screen for domestic violence during the prenatal period.

1149. A 31-years-old female comes to the doctor to do a pap smear and HPV test. After some time the result is negative for any pathology. Which of the following is the best recommendation for repeated screening with Pap smear and HPV test?

- A. Every 2 years
- B. Every 3 years
- C. Every 5 years
- D. Every 6 months
- E. Every year

Answer: C

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test). Beginning at age 30, the preferred way to screen is with a Pap test combined with an HPV test every 5 years. This is called co-testing and should continue until age 65. Another reasonable option for women 30 to 65 is to get tested every 3 years with just the Pap test.

<https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

1150. A mother has a Rh-positive blood group and her husband Rh-negative blood group. Which of the following is the probability that their kid would have Rh-positive blood group?

- A. 0%
- B. 100%
- C. 25%
- D. 50%

Answer: B

Rhesus antigen (Rh-D) is inherited in an autosomal dominant pattern. In order to have a rhesus negative child, neither parent must be homozygous for the D allele.

1151. A patient has an ovarian mass. Which of the following is an ovarian cancer tumor marker?

- A. AFP
- B. CA-125
- C. LDH
- D. b-hCG

Answer: B

The potential role of CA-125 for the early detection of ovarian cancer is controversial and has not yet been adopted for widespread screening efforts in asymptomatic women. The major issues with using the CA-125 biomarker are its lack of sensitivity, particularly for detecting early stages of ovarian cancer, and its lack of specificity, especially in premenopausal women. These limitations mean that CA-125 testing often gives false positives for ovarian cancer and puts patients through unnecessary further screening (sometimes including surgery) and anxiety. Also, these limitations mean that many women with early stage ovarian cancer will receive a false negative from CA-125 testing and not get further treatment for their condition.

1152. An elderly woman with vulvovaginal lichen planus lesion in posterior vaginal fornix comes for a medical consultation. Which of the following is associated with vulvovaginal lichen planus?

- A. Adenocarcinoma
- B. Large cell carcinoma
- C. Small cell carcinoma
- D. Squamous cell carcinoma

Answer: D

Lichen planus (LP) is a disease characterized by itchy reddish-purple polygon-shaped skin lesions on the lower back, wrists, and ankles. Lichen planus-associated Squamous cell carcinomas were located in nonhair-bearing vulvar mucosa. Patients had a high rate of inguinal metastases, recurrent vulvar cancers in diseased mucosa, and disease-related death.

<https://www.ncbi.nlm.nih.gov/pubmed/24999271>

1153. Which of the following is the most common cause of maternal deaths?

- A. Blood clots
- B. Hypertensive disorders of pregnancy
- C. Postpartum bleeding
- D. Postpartum infections

Answer: C

The most common causes are postpartum bleeding (15%), complications from unsafe abortion (15%), hypertensive disorders of pregnancy (10%), postpartum infections (8%), and obstructed labour (6%). Other causes include blood clots (3%) and pre-existing conditions (28%).^[6] Indirect causes are malaria, anemia/anaemia, HIV/AIDS, and cardiovascular disease, all of which may complicate pregnancy or be aggravated by it.

1154. A patient presents for prenatal care in the second trimester. She was born outside the United States and has never had any routine vaccinations. Which of the following vaccines is contraindicated in pregnancy?

- A. Hepatitis A
- B. Measles
- C. Tetanus
- D. Typhoid

Answer: B

Immunization in pregnancy often brings about much concern for both patient and physician. Teratogenic concerns regarding the vaccine must be weighed against the potential for harm from the infectious agent. In the case of hepatitis A and B, rabies, tetanus, and varicella, patients may be treated with hyperimmunoglobulin or pooled immune serum globulin. Inactivated bacterial vaccines can be used for cholera, plague, and typhoid, as appropriate. Vaccines for measles and mumps are generally considered to be contraindicated, as these are live viruses, although the rubella vaccine, which is known to have been administered inadvertently to more than 1000 pregnant women, has never caused a problem and in fact can be used in selected circumstances of exposure.

1155. Which of the following are true symptoms of pregnancy?

- A. Amenorrhoea, urinary frequency, nausea and vomiting
- B. Bleeding and shock
- C. Diarrhea and weight loss
- D. Fever and sore throat
- E. None of the above

Answer: A

True symptoms of pregnancy are:

Food aversions
Mood swings
Abdominal bloating
Frequent urination
Fatigue
Sore breasts
Light bleeding or spotting
Nausea
A missed period
High basal body temperature
Positive home pregnancy test

1156. A 80-year-old came with foul-smelling vaginal discharge and irritated uvula. During the microscopy, there are motile protozoa with multiple flagella on a saline wet mount. Which one of the following is the most likely diagnosis?

- A. Bacterial vaginosis
- B. Candidiasis
- C. *Trichomonas vaginalis*
- D. atrophic vaginitis

Answer: C

Explanation Trichomoniasis is a sexually transmitted infection. Trichomoniasis is caused by a one-celled protozoan organism called *Trichomonas vaginalis*. It travels from person to person through genital contact during sex. Examining samples of vaginal fluid (for women) or urethral discharge (for men) under a microscope will show motile protozoa with multiple flagella. Reference: First Aid USMLE Step 2 CK 2014, page 376

1157. Which of the following statements regarding breastfeeding is true?

- A. Breastfed infants have a increased risk of developing respiratory infections.
- B. Breastfeeding alone is a reliable form of contraception.
- C. Breastfeeding increases the risk of both ovarian and breast cancer.

D. The only absolute infant contraindication to breastfeeding is galactosemia.

Answer: D

Breast milk is the ideal form of nutrition for the first 6 months of life, and exclusive breastfeeding is strongly recommended.

Contraindications to breastfeeding:

1. Galactosemia in baby
2. HIV
3. HSV if lesions on breast
4. Acute maternal disease if absent in infant (e.g., tuberculosis, sepsis)
5. Maternal cancer receiving treatment
6. Substance abuse

The only absolute infant contraindication to breastfeeding is galactosemia.

Transmission of HIV by breastfeeding is well documented; therefore, the presence of maternal HIV infection is an absolute contraindication to breastfeeding.

1158. A breastfeeding mother comes for a medical consultation. Which of the following is the absolute contraindication for breastfeeding?

- A. Had tuberculosis
- B. Seropositive for cytomegalovirus
- C. Taking antibiotics
- D. Taking antiretroviral medications

Answer: D

Breastfeeding is NOT advisable if one or more of the following conditions is true: An infant diagnosed with galactosemia, a rare genetic metabolic disorder The infant whose mother: Has been infected with the human immunodeficiency virus (HIV) Is taking antiretroviral medications Has untreated, active tuberculosis Is infected with human T-cell lymphotropic virus type I or type II Is using or is dependent upon an illicit drug Is taking prescribed cancer chemotherapy agents, such as antimetabolites that interfere with DNA replication and cell division Is undergoing radiation therapies; however, such nuclear medicine therapies require only a temporary interruption in breastfeeding

1159. Which of the following is true statement regarding cervical cancer?

- A. As soon as the new vaccination is introduced, cervical screening programmes can cease.
- B. HPV is an oncogenic virus for squamous cell but not adenocarcinoma of the cervix.
- C. HPV types 16 and 18 account for the majority of cervical cancer in the UK.
- D. HPV types 6 and 12 are high risk for developing cervical cancer.
- E. The new vaccines can prevent invasive carcinoma but not CIN.

Answer: C

Human papillomavirus infection is an infection by human papillomavirus (HPV). Most HPV infections cause no symptoms and resolve spontaneously. In some people, an HPV infection persists and results in warts or precancerous lesions. The precancerous lesions increase the risk of cancer of the cervix, vulva, vagina, penis, anus, mouth, or throat. Nearly all cervical cancer is due to HPV with two types, HPV16 and HPV18, accounting for 70% of cases.

1160. A woman has adenomyosis. Which of the following would help to make a definitive diagnosis of adenomyosis?

- A. Colposcopy
- B. Endometrial sampling.
- C. Hysterectomy and histological examination
- D. MRI

Answer: C

A definitive diagnosis of adenomyosis can only be made from histological examination of a hysterectomy specimen. Uptodate

1161. A 33-year old multigravida at 38 weeks gestation became disoriented, breathless and cyanotic after spontaneous vaginal delivery. The doctor noticed bleeding from the IV line site. Her blood pressure is 75/49 mm Hg, pulse is 120/min, and respirations are 27/min. Oxygen saturation is 70% on facemask. Which of the following is the most likely diagnosis?

- A. Abruptio Placentae
- B. Amniotic fluid embolism
- C. Myocardial Infarction
- D. Pulmonary Embolism

Answer: B

1. Amniotic fluid embolism (AFE) is a rare obstetric emergency in which it is postulated that amniotic fluid, fetal cells, hair, or other debris enter the maternal circulation, causing cardiorespiratory collapse. 2. Amniotic fluid embolism may occur after amniocentesis or during labor. 3. Reported risk factors for development of AFE include multiparity, advanced maternal age, male fetus, and trauma. 4. Abrupt onset of hypoxia with respiratory failure, cardiogenic shock and seizures, in a patient who had undergone amniocentesis or delivered, is most likely due to amniotic fluid embolism. 5. Disseminated intravascular coagulation (DIC) is the most feared complication in patients with amniotic fluid embolism.

1162. What is the best non-invasive method to diagnose Adenomyosis?

- A. MRI
- B. Office sampling
- C. Rtg with contrast
- D. Ultrasound

Answer: A

MRI (more sensitive and specific) A definitive diagnosis of adenomyosis can only be made from histological examination of a hysterectomy specimen. The preoperative diagnosis is suggested by characteristic clinical manifestations (ie, menorrhagia and dysmenorrhea with a uniformly enlarged uterus) in the absence of endometriosis or leiomyomas. Both transvaginal ultrasound (TVUS) and magnetic resonance imaging (MRI), especially T2-weighted images, are increasingly used for clinical decision-making.

1163. A female was diagnosed with a small tubo ovarian abscess. Which of the following is the best initial therapy for this woman?

- A. Draining with needle
- B. IV antibiotics
- C. Laparoscopy
- D. Laparotomy

Answer: B

Treatment is different if the TOA is discovered before it ruptures and can be treated with IV antibiotics. During this treatment, IV antibiotics are usually replaced with oral antibiotics on an outpatient basis. Pelvic ultrasound. Some abscesses on physical exam. A tubo-ovarian abscess is usually diagnosed by . (laparotomy or laparoscopy) are found by surgical exploration of the abdomen. antibiotics. Very large abscesses or abscesses that do not go away after antibiotic treatment may have to be drained. Draining may be done by using a large needle. or laparotomy. laparoscopy or by cutting into the abscess during The needle is guided by ultrasound. Sometimes the infected tube and ovary also have to be removed surgically. Reference: <http://www.webmd.com/a-to-z-guides/pelvic-inflammatory-disease-tubo-ovarian-abscess-topic-overview>

1164. A multiparous woman has a cervical dysplasia. She has a history of chlamydia infection and HSV type 2. Which of the following is the most likely cause of her dysplasia?

- A. Chlamydia
- B. HIV
- C. HPV

D. HSV type 2

Answer: C

Human papillomavirus (HPV) is the major etiologic agent of cervical precancer and cancer. The association between HPV and cervical neoplasia is so strong that most other behavioral, sexual, and socioeconomic covariables have been found to be dependent upon HPV infection and do not hold up as independent risk factors.

- HPV infection is necessary but not sufficient to develop cervical neoplasia. The two major factors associated with development of high-grade CIN and cervical cancer are the subtype of HPV and persistent infection. Environmental factors (eg, cigarette smoking) and immunologic influences also appear to play a role.

- Low-oncogenic-risk HPV subtypes, such as HPV 6 and 11, do not integrate into the host genome and only cause low-grade lesions (eg, low-grade SIL and CIN 1) and benign genital warts
- High-oncogenic-risk HPV subtypes, such as 16 and 18, are strongly associated with high-grade lesions, persistence, and progression to invasive cancer, but also cause low-grade lesions.

- The primary approach to prevention of CIN and cervical cancer is HPV vaccination. Although HPV is a sexually transmitted infection, condoms are only partially protective. For women with CIN, appropriate monitoring and treatment are used as secondary prevention of cervical cancer.

(Uptodate)

1165. A woman comes for a regular Pap smear screening. Which of the following is the best place to take Pap smear?

- A. Randomly
- B. The CR-Zone
- C. The Z-zone
- D. Transitional zone

Answer: D

A Pap smear involves the painless removal of cells from the cervix. It is a screening test for cervical cancer. A Pap smear is performed by opening the vaginal canal with a speculum, then collecting cells at the outer opening of the cervix at the transformation zone (where the outer squamous cervical cells meet the inner glandular endocervical cells).

1166. Which of the following is the most common cause of acquired angioedema?

- A. ACE inhibitor
- B. Angiotensin II receptor blockers
- C. Beta blockers
- D. Chlorpheniramine

Answer: A

1. **Angioedema** is the swelling of deep dermis, subcutaneous, or submucosal tissue due to vascular leakage.
2. Acute episodes often involve the lip, eyes, and face; however, angioedema may affect other parts of body, including respiratory and gastrointestinal (GI) mucosa. Laryngeal swelling can be life threatening.
3. **Peripheral swelling:** skin and urogenital area (e.g., eyelids or lips, tongue, hands, feet, scrotum, etc.)
4. **Abdomen:** Abdominal pain (sometimes it can be the only presenting symptom of angioedema)
5. **Larynx:** Throat tightness, voice changes, and breathing trouble (indicators of possible airway involvement), potentially life-threatening.
6. The primary goal of medical treatment for angioedema is to reduce and prevent swelling, as well as to reduce discomfort and complication.
7. **Epinephrine** should be used when laryngeal angioedema is suspected.

Angioedemas with identifiable etiologies include those caused by the following:

1. Hypersensitivity (eg, food, drugs, or insect stings)
2. Physical stimuli (eg, cold or vibrations)
3. Autoimmune disease or infection
4. **ACE inhibitors (ACE inhibitors are the most common cause of acquired angioedema)**
5. NSAIDs
6. C1-INH deficiency (hereditary and acquired)

1167. A 65-year-old G3P3 presents to your office for annual checkup. She had her last well-woman examination 20 years ago when she had a hysterectomy for fibroids. She denies any medical problems, except some occasional stiffness in her joints early in the morning. She takes a

multivitamin daily. Her family history is significant for cardiac disease in both her parents and breast cancer in a maternal aunt at the age of 42 years. Her physical examination is normal. Which of the following is the most appropriate set of laboratory tests to order for this patient?

- A. Lipid profile and fasting blood sugar
- B. Lipid profile, fasting blood sugar, TSH, and CA-125
- C. Lipid profile, fasting blood sugar, TSH, and urinalysis
- D. Lipid profile, fasting blood sugar, and TSH

Answer: C

Women more than 65 years old should undergo cholesterol testing every 5 years, fasting glucose testing every 3 years, screening for thyroid disease with a TSH every 5 years, and periodic urinalysis is recommended in women over the age of 65 years. CA-125 testing is not recommended for screening for ovarian cancer. There are many benign conditions which can cause an elevated CA-125, such as pregnancy, endometriosis, fibroids, menses, pelvic inflammatory disease, peritoneal disease, and liver disease.

1168. A 30-year-old female patient has been delivered to the gynaecological department with complaints of acute pain in the lower abdomen and body temperature 38,8C. In history: sexual life out of wedlock and two artificial abortions. Gynaecological examination reveals no changes of uterine. The appendages are enlarged and painful on both sides. Vaginal discharges are purulent and profuse. Which of the following is the best next step for this woman?

- A. Bacteriological and bacterioscopic analysis
- B. Colposcopy
- C. Hysteroscopy
- D. Laparoscopy

Answer: A

This woman most likely has the pelvic inflammatory disease. The best next step for this woman would be bacteriological and bacterioscopic analysis

1169. Which of the following is the treatment of choice for atrophic vaginitis ?

- A. Ciprofloxacin
- B. Corticosteroid cream
- C. Estrogen
- D. Metronidazole

Answer: C

1. **Menopause** is the result of permanent loss of estrogen. Menopause occurs in patients aged 48 to 52.
2. Symptoms of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, dyspareunia and night sweats.
3. **Vaginal atrophy (atrophic vaginitis)** is characterized by dryness, inflammation, and thinning of the epithelial lining of the vagina and lower urinary tract due to loss of estrogen.
4. **Vaginal atrophy presents** with vaginal dryness and dysuria, and physical exam findings of pale, dry vaginal mucosa, diminished labial fat pad, and scarce pubic hair.
5. It typically occurs in **menopausal women**.
6. **Atrophic vaginitis is treated with estrogen**

1170. Which of the following is HELLP syndrome?

- A. Hemolysis, eclampsia, low platelets, low RBC, proteinuria
- B. Hemolysis, elevated liver enzyme, low platelet
- C. Hypertension, eclampsia, low liver enzymes, proteinuria
- D. Hypertension, elevated liver enzyme, low platelet

Answer: B

HELLP syndrome is a life-threatening pregnancy complication usually considered to be a variant or complication of pre-eclampsia. Both conditions usually occur during the later stages of pregnancy, or sometimes after childbirth. "HELLP" is an abbreviation of the three main features of the syndrome: Hemolysis, Elevated Liver enzymes, and Low Platelet count. The syndrome may be associated with serious liver manifestations, including death of liver cells due to inadequate blood flow and oxygen delivery, bleeding, and rupture.

1171. A pregnant woman at 7 weeks of pregnancy comes for a regular check-up. Which of the following is the best non-invasive test to confirm the diagnosis of ectopic pregnancy?

- A. Laparoscopy

- B. Transabdominal ultrasound
- C. Transvaginal ultrasound
- D. b-HCG titer

Answer: C

Most ectopic pregnancies can be detected using a pelvic exam, ultrasound, and blood tests. If you have symptoms of a possible ectopic pregnancy, you will have: A pelvic exam, which can detect tenderness in the uterus or fallopian tubes, less enlargement of the uterus than expected for a pregnancy, or a mass in the pelvic area. A pelvic ultrasound (transvaginal or abdominal), which uses sound waves to produce a picture of the organs and structures in the lower abdomen. A transvaginal ultrasound is used to show where a pregnancy is located. A pregnancy in the uterus is visible 6 weeks after the last menstrual period. An ectopic pregnancy is likely if there are no signs of an embryo or fetus in the uterus as expected, but hCG levels are elevated or rising. Two or more blood tests of pregnancy hormone (human chorionic gonadotropin, or hCG) levels, taken 48 hours apart. During the early weeks of a normal pregnancy, hCG levels double every 2 days. Low or slowly increasing levels of hCG in the blood suggest an early abnormal pregnancy, such as an ectopic pregnancy or a miscarriage. If hCG levels are abnormally low, further testing is done to find the cause. Sometimes a surgical procedure using laparoscopy is used to look for an ectopic pregnancy. It is the most accurate and specific test. An ectopic pregnancy after 5 weeks can usually be diagnosed and treated with a laparoscope. But laparoscopy is not often used to diagnose a very early ectopic pregnancy, because ultrasound and blood pregnancy tests are pretty accurate and noninvasive.

1172. A woman with moderate cystocele. Which of the following is medically contraindicated for this woman?

- A. Condoms
- B. Copper containing intrauterine device
- C. Diaphragm
- D. Progestin-only contraceptive pills

Answer: C

Progestin only pills are contraindicated in women with unexplained uterine bleeding or breast cancer. Both condoms and the diaphragm, used in conjunction with spermicides, are effective contraceptives. The diaphragm should carefully fit in the vagina and is therefore not applicable to women with anatomic distortion of the vagina. Latex condoms should not be used in women with a known latex allergy. Manufacturer's contraindications to IUD use include: history of acute, chronic or recurrent pelvic inflammatory disease (PID), multiple sexual partners, or ectopic pregnancy or condition predisposing to ectopic pregnancy. Wilson's disease or copper allergy are contraindications to the use of a copper-containing IUD. Although tubal ligation may be considered in the patient with chronic obstructive lung disease, the risk of general anesthesia and surgical intervention in this patient is probably high enough to indicate a more conservative approach, such as the use of an IUD.

1173. A 24-year-old woman comes to the physician because of right lower quadrant abdominal pain. She has had the pain off and on for the past month, but it is now increasing. She has no other symptoms and no medical problems. Examination reveals a mildly tender, right adnexal mass. Pelvic ultrasound shows a 7 cm right adnexal complex cyst. Urine hCG is negative. The patient is taken to the operating room for laparotomy and right ovarian cystectomy. Microscopically the cyst has cartilage, adipose tissue, intestinal glands, hair, and a calcification that appears to be a tooth. There is also a large amount of thyroid tissue. Which of the following is the most likely diagnosis ?

- A. Corpus luteum
- B. Ectopic pregnancy
- C. Gastric carcinoma
- D. Struma ovarii
- E. Thyroid carcinoma

Answer: D

A struma ovarii is a rare form of monodermal teratoma that contains mostly thyroid tissue, which may cause hyperthyroidism. The vast majority of struma ovarii are benign tumors; however, malignant tumors of this type is found in a small percentage of cases.

1174. A 20-year-old female comes with complaints about not having a menstrual period for 7 months. Her medical history is full of early childhood infections and frequent tonsillitis. Her menarche was at 13 years-old, and she has a regular monthly menstrual cycle for 28 days, and painless menstruation lasts 5-6 days. 7 months ago the patient had an emotional stress. Gynecological examination revealed no changes in the uterus. Which of the following is the most likely diagnosis?

- A. Cryptomenorrhea
- B. Primary amenorrhea
- C. Secondary amenorrhea
- D. Spanomenorrhea

Answer: C

Primary vs. secondary: Primary amenorrhoea is the absence of menstruation in a woman by the age of 16. As pubertal changes precede the first period, or menarche, female children by the age of 14 who still have not reached menarche, plus having no sign of secondary sexual characteristics, such as thelarche or pubarche—thus are without evidence of initiation of puberty—are also considered as having primary amenorrhoea. Secondary amenorrhoea is where an established menstruation has ceased—for three months in a woman with a history of regular cyclic bleeding, or nine months in a woman with a history of irregular periods. This usually happens to women aged 40–55. However, adolescent athletes are more likely to experience disturbances to the menstrual cycle than athletes of any other age. Amenorrhoea may cause serious pain in the back near the pelvis and spine. This pain has no cure, but can be relieved by a short course of progesterone to trigger menstrual bleeding.

1175. A 17-year-old female patient complains of fatigue, poor sleep quality, and breast tenderness. These symptoms occur on a monthly basis, about 2 weeks before menstruation. Her symptoms greatly improve with menses.

- A. Cyclosporin
- B. Lithium
- C. NSAID
- D. Valproate

Answer: C

Premenstrual syndrome (PMS)

1. Syndromes seen in women with normal functioning ovaries that precede menses and are characterized by multiple pain, mood, and autonomic symptoms; mood symptoms are more severe in premenstrual dysphoric disorder (PMDD).
2. Most women with menstrual cycles experience some symptoms, but 5% to 10% of women have severe symptoms that interfere with daily life.
3. Risk factors: family history
4. Clinical features: Weight gain, headache, abdominal or pelvic pain, abdominal bloating, change in bowel habits, food cravings, mood lability, depression, fatigue, irritability; breast tenderness, edema, abdominal tenderness, acne
5. Findings precede menses and occur at similar time points in each cycle.
6. Treatment: exercise, vitamin B6, NSAIDs, OCPs, progestins.
7. Selective serotonin reuptake inhibitors (SSRIs) e.g. fluoxetine are first-line treatment for PMS/PMDD.

1176. A woman complains of pain in her right breast. During palpation, there was revealed a 3x4 cm large infiltration which is soft in the center. The body temperature is 38,5C. Which of the following is the most likely diagnosis in this woman?

- A. Breast abscess
- B. Breast engorgement
- C. Mastitis
- D. Retention of milk

Answer: C

Mastitis is inflammation of the breast or udder, usually associated with breastfeeding. Symptoms typically include local pain and redness. There is often an associated fever and general soreness. Onset is typically fairly rapid and usually occurs within the first few months of delivery. Complications can include abscess formation.

1177. You are evaluating a 19-year-old woman for a sexual assault. She denies any medical problems or allergies to medications. Her pregnancy test is negative. Which of the following antibiotic prophylaxes do you

recommend for sexually transmitted infections?

- A. Azithromycin 1 g orally plus Ceftriaxone 125 mg IM.
- B. Ceftriaxone 125 mg IM.
- C. Ciprofloxacin 500 mg PO twice daily x 7 days.
- D. Metronidazole 2 g orally in a single dose.

Answer: A

Antibiotic prophylaxis for gonorrhea and chlamydia should be given. Recommended treatment is ceftriaxone 125 mg intramuscularly in a single dose plus azithromycin 1 g orally in a single dose. Optional treatments include hepatitis B vaccination, metronidazole 2 g orally and prophylaxis for HIV with zidovudine and lamivudine.

1178. A 28-year-old female presents with difficulty becoming pregnant. She and her husband have been trying to conceive for 7 months, but have been unsuccessful. She reports menarche at age 13 and has had regular periods since then. She has also had a pelvic inflammatory disorder, treated successfully with antibiotics. Which of the following is the best step for this patient?

- A. Hysterosalpingogram
- B. Mid-luteal phase serum progesterone
- C. Postcoital check
- D. Reassurance

Answer: D

Infertility is an inability to conceive after 1 year of unprotected sex in the absence of any known causes of infertility or after 6 months if the woman is > 35 years of age or in couples with known risk factors for infertility. This woman has only 7 months of unprotected intercourse, so reassurance is the best next step for her.

1179. A 30-year-old G1 at 28 weeks gestation with a twin pregnancy is admitted to the hospital for preterm labor with regular painful contractions every 2 minutes. She is 3 cm dilated with membranes intact and a small amount of bloody show. Ultrasound reveals growth restriction of twin A and oligohydramnios, otherwise normal anatomy. Twin B has normal anatomy and has appropriate-for-gestational-age weight. Which of the following is a contraindication to the use of indomethacin as a tocolytic in this patient?

- A. Gestational age greater than 26 weeks
- B. Oligohydramnios
- C. Twin gestation
- D. Vaginal bleeding

Answer: B

Indomethacin would not be an appropriate tocolytic agent in this patient. Indocin is a prostaglandin synthetase inhibitor that can decrease fetal urine production and cause oligohydramnios. Since twin B already has oligohydramnios secondary to twin-to-twin transfusion syndrome, it is best to avoid this therapy. Nifedipine is used for tocolysis and is thought to work by preventing entry of calcium into muscle cells. It can be associated with hypotension, so blood pressure must be followed carefully. Ritodrine and terbutaline are tocolytic agents that are β -adrenergic agents. They work by increasing cAMP in cells, which decreases free calcium. These agents can be associated with tachycardia, hypotension, and pulmonary edema. Magnesium sulfate is a tocolytic agent that works by competing with calcium for entry into cells. At high levels, it can cause respiratory and cardiac depression.

1180. A lady complains of vague abdominal pain, constipation, and a sense of fullness in the lower abdomen. On physical exam the abdomen is nontender, but there is shifting dullness to percussion. Which of the following is the best next step for this woman?

- A. CA-125
- B. Pelvic examination
- C. Pelvic ultrasonography
- D. Sigmoidoscopy

Answer: B

The first step in this patient's evaluation is a pelvic exam to check for ovarian cancer. Pelvic fullness, vague discomfort, constipation, and early satiety are often the first symptoms of this disease. Ascites may be present on initial evaluation. Abdominal ultrasound would follow. The CA 125 cancer antigen supports the diagnosis of ovarian cancer, but it is not sensitive or specific. If the pelvic exam and ultrasound were negative, sigmoidoscopy might be indicated to evaluate the patient's constipation.

1181. You are doing postpartum rounds on a 23-year-old G1P1 who is postpartum day 2 after an uncomplicated vaginal delivery. As you walk in the room, you note that she is crying. She states she can't seem to help it. She denies feeling sad or anxious. She has not been sleeping well because of getting up every 2 to 3 hours to breast-feed her new baby. Her past medical history is unremarkable. Which of the following is the most appropriate treatment recommendation?

- A. A sleep aid
- B. Referral to psychiatry for admission to a psychiatry ward and therapy with Haldol
- C. Referral to psychiatry for counseling and antidepressant therapy
- D. Time and reassurance, because this condition is self-limited

Answer: D

Women experiencing postpartum blues usually do fine with reassurance alone, because this condition usually resolves spontaneously in a short period of time. Women with postpartum depression need referral to a psychiatrist who can administer psychotherapy and prescribe antidepressants. Haldol is an antipsychotic that might be administered in the treatment of postpartum psychosis. Sleep aids are not recommended. Electroconvulsive therapy would be used to treat depression only if a patient were unresponsive to pharmacologic therapy.

1182. A 23-year-old woman (gravida 2, para 2) calls her physician 7 days postpartum because she is concerned that she is still bleeding from the vagina. Which of the following would be appropriate to tell this woman that it is normal for bloody lochia to last up to?

- A. 11 days
- B. 14 days
- C. 2 days
- D. 5 days
- E. 8 days

Answer: B

Lochia is the vaginal discharge after giving birth (puerperium) containing blood, mucus, and uterine tissue. Lochia discharge typically continues for 4 to 6 weeks after childbirth, which is known as the postpartum period. It progresses through three stages: Lochia rubra (or cruenta) is the first discharge, composed of blood, shreds of fetal membranes, decidua, vernix caseosa, lanugo and membranes. It is red in color because of the large amount of blood it contains. It typically lasts no longer than 3 to 5 days after birth. Lochia serosa is the term for lochia that has thinned and turned brownish or pink in color. It contains serous exudate, erythrocytes, leukocytes, cervical mucus and microorganisms. This stage continues until around two weeks. Lochia alba (or purulenta) is the name for lochia once it has turned whitish or yellowish-white. It typically lasts from the second through the third to sixth weeks after delivery. It contains fewer red blood cells and is mainly made up of leukocytes, epithelial cells, cholesterol, fat, mucus and microorganisms. Continuation beyond a few weeks can indicate a genital lesion, which should be reported to a physician.

1183. A woman presents to your office complaining of a growth around her vaginal opening. Recently, the growth has been itching and bleeding. On physical examination she has a broad-based lesion measuring 2 cm in diameter on the posterior fourchette. Although there is no active bleeding, the lesion has some crusted blood along the right lateral margin. Which of the following is the best way to treat this patient?

- A. Injection of 5-fluorouracil into the lesions
- B. Local excision of the lesion
- C. Self-application of imiquimod to the lesions by the patient
- D. Weekly application of podophyllin in the office

Answer: B

The lesions are most likely condyloma acuminata, also known as venereal warts. Condyloma acuminata are squamous lesions caused by a human papillomavirus (HPV). The lesions reveal a treelike growth microscopically with a mantle that shows marked acanthosis and parakeratosis. Treatment options include local excision, cryosurgery, application of podophyllin or trichloroacetic acid, and laser therapy, although podophyllum is not recommended for extensive disease because of toxicity (peripheral neuropathy). For intractable condyloma of the vagina, 5-fluorouracil can be employed. Medical treatment with podophyllum, imiquimod, trichloroacetic acid, and 5-fluorouracil requires weeks or months of therapy to be effective. As this patient has a large, bleeding lesions, local excision is the best treatment option.

1184. A healthy baby was born full term. However, during the physical examination, you have found that the skin tissue around the vaginal area (labia) is swelling. Which of the following is most likely the cause of the findings in this baby?

- A. Estrogen
- B. Progesterone
- C. Testosterone
- D. hCG

Answer: A

Hormones from the mother (maternal hormones) are some of the chemicals that pass through the placenta into the baby's blood during pregnancy. These hormones can affect the baby. For example, pregnant women produce high levels of the hormone estrogen. This causes breast enlargement in the mother. By the third day after birth, breast swelling may also be seen in newborn boys and girls. Such newborn breast swelling does not last, but it is a common concern among new parents. The breast swelling should go away by the second week after birth as the hormones leave the newborn's body. DO NOT squeeze or massage the newborn's breasts because this can cause an infection under the skin (abscess). Hormones from the mother may also cause some fluid to leak from the infant's nipples. This is called witch's milk. It is common and most often goes away within 2 weeks. Newborn girls may also have temporary changes in the vaginal area. The skin tissue around the vaginal area, called the labia, may look puffy as a result of estrogen exposure. There may be a white fluid (discharge) from the vagina. This is called physiologic leukorrhea. There may also be a small amount of bleeding from the vagina. These changes are common and should slowly go away over the first 2 months of life. Reference : <https://medlineplus.gov/ency/article/001911.htm>

1185. A 20-year-old G1 at 36 weeks is being monitored for preeclampsia; she rings the bell for the nurse because she is developing a headache and feels funny. As you and the nurse enter the room, you witness the patient undergoing a tonic-clonic seizure. You secure the patient's airway, and within a few minutes the seizure is over. The patient's blood pressure monitor indicates a pressure of 160/110 mm Hg. Which of the following medications is recommended for the prevention of a recurrent eclamptic seizure?

- A. Hydralazine
- B. Labetalol
- C. Magnesium sulfate
- D. Pitocin

Answer: C

Women who have suffered an eclamptic seizure need to have their blood pressure controlled with antihypertensive medications if the diastolic is increased above 105 to 110 mm Hg. The purpose of antihypertensive therapy is to avoid a maternal stroke. Hydralazine, nifedipine, and labetalol are commonly used in acute hypertensive crises. Magnesium sulfate is administered as a loading dose and then as a continuous infusion to prevent further seizures. Steps to effect a vaginal delivery should then be undertaken. To avoid maternal risks from surgery, cesarean section should be avoided. In the case presented here, the bradycardia seen in the fetus is transient and is caused by the maternal hypoxia that has occurred with the seizure. Delivery during a bradycardic episode would impose unnecessary risk for the fetus and should be avoided. In the case presented here, the patient has a ripe cervix and labor should be induced with amniotomy and Pitocin. A Foley catheter should be placed to keep track of maternal renal function.

1186. A 30-year-old woman did HPV testing and pap smear. When is it recommended for her to be retested?

- A. annually
- B. every 2 years
- C. every 3 years
- D. every 5 years

Answer: D

All women should begin cervical cancer testing (screening) at age 21. Women aged 21 to 29, should have a Pap test every 3 years. HPV testing should not be used for screening in this age group (it may be used as a part of follow-up for an abnormal Pap test). Beginning at age 30, the preferred way to screen is with a Pap test combined with an HPV test every 5 years. This is called co-testing and should continue until age 65. <https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html>

1187. A 26-year-old female in her 4th month of pregnancy comes to her doctor with a complaint of spotty vaginal bleeding for the past 3 days. Bleeding has been accompanied by mild nausea and vomiting over the past

week. On pelvic exam, you note her uterus as being much larger than expected for her the estimated gestational age of the fetus. You perform an intravaginal ultrasound which shows a "snowstorm" appearance" and no fetal heartbeat can be detected. Which of the following is most likely to be elevated in the patient's serum?

- A. Alpha-fetoprotein
- B. Estradiol
- C. Human chorionic gonadotropin
- D. Human placental lactogen
- E. Lactate dehydrogenase

Answer: C

Hydatidiform moles are one of the most common but benign forms of gestational trophoblastic disease. A hydatidiform mole can either be complete or partial. The absence or presence of a fetus or embryo is used to distinguish complete from partial moles: complete moles are associated with the absence of a fetus. Partial moles usually occur with an abnormal fetus or may even be associated with fetal demise. In the classic case of molar pregnancy, quantitative analysis of beta-HCG shows hormone levels in both blood and urine greatly exceeding those produced in a normal pregnancy at the same stage. Ultrasound will show enlarged uterus, multiple cystic structures classically give a "snow storm" or "bunch of grapes" type appearance. Ref: <https://radiopaedia.org/articles/hydatidiform-mole>

1188. After your evaluation and treatment of a rape victim has been completed, you discharge the patient to home. When is the best time to schedule a follow-up appointment for the patient?

- A. 1 week.
- B. 12 weeks.
- C. 24 to 48 hours.
- D. 6 weeks.

Answer: C

The patient should receive follow-up counseling within 24 to 48 hours, and subsequent follow-up appointments can be arranged at 1 and 4 weeks. The patient should not leave without plans for follow-up.

1189. A 31-year-old G3P2 female is at 15 weeks gestation with the history of gestational diabetes mellitus during previous pregnancy comes to you with a question if she has gestational diabetes. When would you order glucose tolerance test in this woman?

- A. 16 weeks
- B. 24 weeks
- C. 30 weeks
- D. 32 weeks

Answer: B

All pregnant women should do glucose tolerance test during 24-28 weeks of pregnancy. Nevertheless, if the woman had gestational diabetes mellitus before, she should do the test in the first trimester (less or equal 16 weeks).

1190. A 30-year-old G1 with twin gestation at 28 weeks is being evaluated for vaginal bleeding and uterine contractions. A bedside ultrasound examination rules out the presence of a placenta previa. Fetal heart rate tracing is reactive on both twins, and the uterine contractions are every 2 to 3 minutes and last 60 seconds. A sterile speculum examination is negative for rupture membranes. A digital examination indicates that the cervix is 2 to 3 cm dilated and 50% effaced, and the presenting part is at -3 station. Tocolysis with magnesium sulfate is initiated and intravenous antibiotics are started for group B streptococcus prophylaxis. Betamethasone, a corticosteroid, is also administered. Which of the following statements regarding the use of betamethasone in the treatment of preterm labor is true?

- A. Betamethasone enhances the tocolytic effect of magnesium sulfate and decreases the risk of preterm delivery.
- B. Betamethasone has been shown to decrease intraamniotic infections.
- C. Betamethasone promotes fetal lung maturity and decreases the risk of respiratory distress syndrome.
- D. The anti-inflammatory effect of betamethasone decreases the risk of GBS sepsis in the newborn.

Answer: C

The patient is in pre-term labor, because she has a dilated and effaced cervix in the presence of regular uterine contractions. Therefore, treatment is aimed at delaying delivery to allow continued fetal growth and maturity. The administration of tocolytic therapy to treat the preterm contractions is indicated. In addition, from 24 to 34 weeks, management also includes the administration of steroids, such as betamethasone, to promote fetal lung maturity. Respiratory distress syndrome is a sequela of preterm neonates and occurs less often in infants given betamethasone in utero. If delivery seems likely, intravenous antibiotics are administered to prevent possible neonatal sepsis. If the patient's contractions subside and there is no evidence of infection, then the antibiotics can be discontinued. It is advantageous to obtain a neonatology consult on any patient who appears to be in preterm labor so the parents know what to expect if they give birth to preterm infants. There is no need to prepare for a cesarean section in this patient. Attempts are made to stop the labor first. If the patient continues to progress, then a vaginal delivery is preferred since the twins do not have a malpresentation.

1191. You are delivering a 26-year-old G3P2002 at 40 weeks. She has a history of two previous uncomplicated vaginal deliveries and has had no complications in this pregnancy. After 15 minutes of pushing, the baby's head delivers spontaneously, but then retracts back against the perineum. As you apply gentle downward traction to the head, the baby's anterior shoulder fails to deliver. Which of the following is the best next step in the management of this patient?

- A. Call for help.
- B. Cut a symphysiotomy.
- C. Instruct the nurse to apply fundal pressure.
- D. Perform a Zavanelli maneuver.

Answer: A

In this clinical scenario, a shoulder dystocia is encountered. A shoulder dystocia occurs when the fetal shoulders fail to spontaneously deliver secondary to impaction of the anterior shoulder against the pubic bone after delivery of the head has occurred. Shoulder dystocia is an obstetric emergency and one should always call for help when such a situation is encountered. A generous episiotomy should always be made to allow the obstetrician to have adequate room to perform a number of manipulations to try to relieve the dystocia. Such maneuvers include the following: suprapubic pressure, McRoberts maneuver (flexing maternal legs upon the abdomen), Wood's corkscrew maneuver (rotating the posterior shoulder), and delivery of the posterior shoulder. There is no role for fundal pressure because this action further impacts the shoulder against the pubic bone and makes the situation worse. A Zavanelli maneuver is replacement of the fetal head into the pelvis so that cesarean delivery can be performed. It should only be attempted when all other methods have failed. A symphysiotomy involves cutting the pubic symphysis and has a high morbidity for the mother.

1192. A 42-year-old woman, G2, P2, presents with the chief complaint of severe bilateral breast pain that seems to be worse around the time of menses. Physical examination reveals bilateral breast tenderness with palpation. Multiple lumps are palpated in both breasts. Mammogram reveals dense bilateral breast tissue. Which of the following is the most likely diagnosis in this patient?

- A. Fibroadenoma
- B. Fibrocystic disease
- C. Mammary duct ectasia
- D. Mastitis
- E. Paget's disease

Answer: B

Fibrocystic breasts or fibrocystic breast disease or fibrocystic breast condition commonly referred to as "FBC" is a condition of breast tissue affecting an estimated 30-60% of women and at least 50% of women of childbearing age. Some studies indicate that the lifetime prevalence of FBC may be as high as 70% to 90%. It is characterized by noncancerous breast lumps which can sometimes cause discomfort, often periodically related to hormonal influences from the menstrual cycle. Symptoms follow a periodic trend tied closely to the menstrual cycle. Symptoms tend to peak in the days and, in severe cases, weeks before each period and decrease afterward. At the peak, breasts may feel full, heavy, swollen, and tender to the touch. No complications related to breastfeeding have been found.

1193. A 29-year-old pregnant woman comes to gynecologist during the 32nd week of her pregnancy. Physical examination reveals pitting edema around her ankles and her blood pressure is 160/100 mmHg. 24-hour urine collection shows 4 grams of protein. Suddenly she develops a seizure. Which of the following could prevent seizures in the future?

- A. Bupropion
- B. Diazepam
- C. Magnesium sulfate
- D. Phenytoin

Answer: C

The prevention of seizure activity in pre-eclampsia and recurrent seizures in eclamptic patients is an essential aspect of management. Many drugs with anticonvulsant properties have been used to treat patients with pre-eclampsia and eclampsia. Magnesium sulfate is a significantly better drug than either diazepam or phenytoin for preventing recurrent seizures in eclamptic patients. Magnesium sulfate has diverse cardiovascular and neurological effects and also alters calcium metabolism. Magnesium sulfate is now the drug choice for treating eclamptic patients.

<https://www.ncbi.nlm.nih.gov/pubmed/8879973>

1194. A 32-year-old woman presents to the physician with painful, itchy vesicular lesion on the vulvar area, low-grade fever, cervical motion tenderness, and white vaginal discharge. Which of the following is the best

treatment for this patient?

- A. Azithromycin
- B. Clindamycin
- C. Metronidazole
- D. Valacyclovir

Answer: D

Herpes Simplex Virus (HSV) 1. HSV is transmitted via close personal contact. 2. HSV-1 is transmitted chiefly by contact with infected saliva, whereas HSV-2 is transmitted sexually or from a mother's genital tract infection to her newborn. However, lesion location does not always indicate viral type. Types: 1. Type I: Ophthalmic and oral lesions. 2. Type II: Genital lesions. Clinical picture: Small painful vesicles around mouth (HSV-1) or genitals (HSV-2) lasting several days; primary infection usually presents with more severe symptoms and a flulike illness; disease affecting eyes causes impaired vision; disease affecting esophagus causes odynophagia and dysphagia. Diagnosis: Tzanck smear shows multinucleated giant cells, and intranuclear inclusion bodies. Treatment: Incurable, so treatment should be directed at minimizing symptoms and exacerbations; acyclovir, famciclovir, or valacyclovir shortens duration of recurrences and may decrease number of recurrences in patients with frequent eruptions; therapy can either be intermittent (episodic) or continuous (suppressive).

1195. A female was diagnosed urge incontinence and was prescribed oxybutynin. Which of the following is the mechanism of action of oxybutynin?

- A. Inducer of muscarinic receptors
- B. Inducer of muscarinic receptors
- C. Inhibitor of muscarinic receptors
- D. Inhibitor of nicotinic receptors

Answer: C

Oxybutynin is an anticholinergic medication used to relieve urinary and bladder difficulties, including frequent urination and inability to control urination (urge incontinence), by decreasing muscle spasms of the bladder. It is also given to help with symptoms associated with kidney stones. It competitively antagonizes the M1, M2, and M3 subtypes of the muscarinic acetylcholine receptor. It also has direct spasmolytic effects on bladder smooth muscle as a calcium antagonist and local anesthetic, but at concentrations far above those used clinically.

1196. A 28-year-old G3P0 has a history of severe menstrual cramps, prolonged, heavy periods, chronic pelvic pain, and painful intercourse. All of her pregnancies were spontaneous abortions in the first trimester. A hysterosalpingogram (HSG) she just had as part of the evaluation for recurrent abortion showed a large uterine septum. You have recommended surgical repair of the uterus. Of the patient's symptoms, which is most likely to be corrected by resection of the uterine septum?

- A. Dysmenorrhea
- B. Dyspareunia
- C. Habitual abortion
- D. Menometrorrhagia

Answer: C

Habitual abortion is the most important indication for surgical treatment of women who have a double uterus. The abortion rate in women who have a double uterus is two to three times greater than that of the general population. Therefore, women who present with habitual abortion should be evaluated to detect a possible septate uterus. Hysterosalpingography, hysteroscopy, ultrasound, CT, and magnetic resonance imaging (MRI) are all potentially useful imaging modalities in this investigation. Dysmenorrhea, dyspareunia, and menometrorrhagia are not caused by the presence of a uterine septum.

1197. A 25-year-old G1P1 comes to see you 6 weeks after an uncomplicated vaginal delivery for a routine postpartum examination. She denies any problems and has been breast-feeding her newborn without any

difficulties since leaving the hospital. During the bimanual examination, you note that her uterus is irregular, firm, nontender, and about a 15-week size. Which of the following is the most likely etiology for this enlarged uterus?

- A. Adenomyosis
- B. Endometritis
- C. Fibroid uterus
- D. Subinvolution of the uterus

Answer: C

The uterus achieves its previous nonpregnant size by about 4 weeks postpartum. Subinvolution (cessation of the normal involution) of the uterus can occur in cases of retained placenta or uterine infection. In such cases, the uterus is larger and softer than it should be on bimanual examination. In addition, the patient usually experiences prolonged discharge and excessive uterine bleeding. With endometritis, the patient will also have a tender uterus on examination, and will complain of fever and chills. In adenomyosis, portions of the endometrial lining grow into the myometrium, causing menorrhagia and dysmenorrhea. On physical examination, the uterus is usually tender to palpation, boggy, and symmetrically enlarged. The patient described here has a physical examination most consistent with fibroids. Uterine leiomyomas would cause the uterus to be firm, irregular, and enlarged.

1198. A 26-year-old woman had the second labor within the last 2 years after oxytocin infusion. The child weight is 4080 g. After the birth of the placenta, there was massive bleeding and signs of hemorrhagic shock. Despite the injection of contractive drugs, there were no good contractions of the uterus and the bleeding has not stopped. Which of the following is the most likely diagnosis in this woman?

- A. Hypotonia of the uterus
- B. Hysterorrhexis
- C. Injury of cervix of the uterus
- D. Uterine Atony

Answer: D

Uterine atony is a loss of tone in the uterine musculature. Normally, contraction of the uterine muscles during labor compresses the blood vessels and reduces flow, thereby increasing the likelihood of coagulation and preventing hemorrhage. A lack of uterine muscle contraction, however, can lead to an acute hemorrhage, as the uterine blood vessels are not sufficiently compressed. Clinically, 75-80% of postpartum hemorrhages are due to uterine atony.

1199. Preterm birth is highly suspected in women if cervix length by ultrasound scanning is less than which of the following?

- A. 15 mm
- B. 20 mm
- C. 25 mm
- D. 30 mm

Answer: A

Normally, the cervix should be at least 30 mm in length. Cervical incompetence is variably defined. However, a common definition is a cervical length of less than 25 mm at or before 24 weeks of gestational age. The risk of preterm birth is inversely proportional to cervical length:

Less than 25 mm; 18% risk of preterm birth
Less than 20 mm; 25% risk of preterm birth
Less than 15 mm; 50% risk of preterm birth

1200. Which of the following not the risk factors of dysmenorrhea?

- A. Alcohol
- B. Heavy menstrual flow
- C. Nulliparity
- D. Smoking

Answer: A

Risk factors for dysmenorrhea include nulliparity, heavy menstrual flow, smoking, and depression.

<https://www.aafp.org/afp/2005/0115/p285.html>

<http://www.webmd.com/sex/birth-control/intrauterine-device-iud-for-birth-control>

1201. The woman comes to office with symptoms of morning sickness, tender breasts, minor cramps, and fatigue. She wanted to be pregnant for 24 months. You have ordered urinary b-hCG in the morning, however, it was negative. On the next day, you have ordered again urinary b-hCG, but it is still negative. Which of the following is the most likely diagnosis in this woman?

- A. Hypochondriasis
- B. Pregnancy
- C. Pseudocyesis
- D. Somatic symptom disorder

Answer: C

False pregnancy, phantom pregnancy, or hysterical pregnancy—officially called pseudocyesis. Pseudocyesis can cause many of the signs and symptoms of pregnancy, and often resembles the condition in every way except for the presence of a fetus. No single theory about the causes of pseudocyesis is universally accepted by mental health professionals. The first theory attributes the false pregnancy to emotional conflict. It is thought that an intense desire to become pregnant, or an intense fear of becoming pregnant, can create internal conflicts and changes in the endocrine system, which may explain some of the symptoms of pseudocyesis.

1202. A maternal fetal medicine specialist is consulted and performs an in-depth sonogram on a 30-year-old G1 at 28 weeks with a twin gestation. The sonogram indicates that the fetuses are both male, and the chorionicity is diamniotic and monochorionic. Twin B is noted to have oligohydramnios and to be much smaller than twin A. Which of the following would be a finding most likely associated with twin A?

- A. Anemia
- B. Congestive heart failure

- C. Hypotension
- D. Hypovolemia

Answer: B

In twin gestations where monochorionic placentas exist, twin-to-twin transfusion syndrome can occur. In this syndrome, there are vascular communications or anastomoses between the twins. There is blood flow or transfusion from one twin to another. The donor twin becomes anemic and may suffer growth retardation and oligohydramnios. The recipient twin may develop hydramnios, hypervolemia, hypertension, polycythemia, and congestive heart failure.

1203. A 74-year-old woman presents to your office for well-woman examination. Her last Pap smear and mammogram were 3 years ago. She has hypertension, high cholesterol, and osteoarthritis. She stopped smoking 15 years ago, and denies alcohol use. Based on this patient's history which of the following medical conditions should be this patient's biggest concern?

- A. Alzheimer disease
- B. Breast cancer
- C. Cerebrovascular disease
- D. Heart disease

Answer: D

In order of decreasing incidence, the leading causes of death in women more than 65 years old are the following: diseases of the heart, cancer, cerebrovascular diseases, chronic obstructive pulmonary diseases, pneumonia and influenza, diabetes mellitus, renal diseases, accidents, and septicemia.

1204. When occurs the premenstrual syndrome?

- A. Before menopause
- B. During ovulation
- C. More in the 2nd half of menses
- D. More in the first half of menses

Answer: C

Premenstrual syndrome (PMS) refers to a group of physical and behavioral symptoms that occur in a cyclic pattern during the second half of the menstrual cycle.

Reference: <http://www.uptodate.com/contents/premenstrual-syndrome-pms-and-premenstrual-dysphoric-disorder-pmdd-beyond-the-basics>

1205. A 51-year-old woman G3P3 presents to your office with a 6-month history of amenorrhea. She complains of debilitating hot flashes that awaken her at night; and she wakes up the next day feeling exhausted and irritable. She tells you she has tried herbal supplements for her hot flashes, but nothing has worked. She is interested in beginning hormone replacement therapy (HRT), but is hesitant to do so because of its possible risks and side effects. The patient is very healthy. She denies any medical problems and is not taking any medication except calcium supplements. She has a family history of osteoporosis. Her height is 5 ft 5 in and her weight is 115 lb. In counseling the patient regarding the risks and benefits of hormone replacement therapy, you should tell her that HRT (estrogen and progesterone) has been associated with which of the following?

- A. An increased risk of colon cancer
- B. An increased risk of developing Alzheimer disease
- C. An increased risk of thromboembolic events
- D. An increased risk of uterine cancer

Answer: C

It is well established that the use of ERT/HRT increases the user's risk of a thromboembolic event two-to threefold. The use of combined HRT does not increase the risk of uterine cancer, colon cancer, or Alzheimer disease. There is much literature to support the idea that HRT use decreases the risk of colon cancer and possibly Alzheimer disease. There is no scientific evidence that HRT use affects the incidence of malignant melanoma.

1206. A 27-year-old woman (gravida 3, para 2) comes to the delivery floor at 37 weeks gestation. She has had no prenatal care. She complains that, on bending down to pick up her 2-year-old child, she experienced sudden,

severe back pain that now has persisted for 2 h. Approximately 30 min ago she noted bright red blood coming from her vagina. By the time she arrives at the delivery floor, she is contracting strongly every 3 min; the uterus is quite firm even between contractions. By abdominal palpation, the fetus is a vertex with the head deeply engaged. Fetal heart rate is 130/min. The fundus is 38 cm above the symphysis. Blood for clotting is drawn, and clot forms in 4 min. Clotting studies are sent to the laboratory. Which of the following actions can wait until the patient is stabilized?

- A. Administering oxytocin
- B. Attaching a fetal electronic monitor
- C. Inserting an intrauterine pressure catheter
- D. Preparing for cesarean section
- E. Stabilizing maternal circulation

Answer: A

This woman most likely has placental abruption. At first, we need to stabilize maternal circulation. At the same time, we need to attach a fetal electronic monitor to exclude fetal distress. Also, we need to insert intrauterine pressure catheter to check uterine contraction. If there is unstoppable hemorrhage, concealed hemorrhage, fetal distress, complete placental separation an emergency cesarean section should be done. Administering oxytocin can wait until the patient is stabilized.

1207. A 22-year-old woman presents for her first Pap smear. She has been sexually active with only one boyfriend since age 19. Her physical examination is completely normal. However, 2 weeks later her Pap smear results return showing HGSIL. There were no endocervical cells seen on the smear. Which of the following is the most appropriate next step in the management of this patient?

- A. Order HPV typing on the initial Pap smear
- B. Perform a cone biopsy of the cervix
- C. Perform colposcopy and directed cervical biopsies
- D. Repeat the Pap smear to obtain endocervical cells

Answer: C

Any patient with a Pap smear result that suggests dysplasia of the cervix should undergo colposcopy. The colposcope is a type of microscope that allows the physician to examine the cervix at a magnification of 10 to 16 times. The Pap smear is a cytological screening test for cervical neoplasm. A Pap smear result of high-grade squamous intraepithelial lesion (HGSIL) may be caused by moderate or severe cervical dysplasia or carcinoma in situ of the cervix. During colposcopy, 3% acetic acid is applied to the cervix. This allows the colposcopist to visualize abnormal blood vessels or acetowhite areas that could represent areas of dysplasia. Abnormal areas are then biopsied for histologic analysis. In patients with an HGSIL Pap, there is no indication for repeating the smear or ordering HPV testing as the cytological test suggests the presence of cervical neoplasia. Repeating a Pap could produce a false-negative result, which can lead to a delay in treatment of the patient. Random cervical biopsies are not indicated because the actual abnormal tissue may be missed. The indications for a cone biopsy would be (1) unsatisfactory colposcopic examination (ie, the entire transformation zone cannot be seen); (2) a colposcopically directed cervical biopsy that indicates the possibility of invasive disease; (3) neoplasm in the endocervix; or (4) cells seen on cervical biopsy that do not adequately explain the cells seen on cytologic examination (ie, the Pap). The absence of endocervical cells in an otherwise normal Pap smear in a patient with no history of abnormal Pap smears is not an indication for a repeat smear. However, in this patient, because of the absence of endocervical cells on the Pap smear, endocervical curettage is indicated to evaluate the endocervical canal for the presence of neoplasia.

1208. An 18-year-old student develops symptoms consistent with primary atypical pneumonia (PAP). This is generally a mild disease, ranging from subclinical infection to serious pneumonitis; the latter characterized by onset of fever, headache, sore throat, and cough but requires laboratory tests to determine which organism is involved and a basis for antimicrobial choices. Which of the following organisms causes this disease in humans?

- A. *Mycoplasma fermentans*
- B. *Mycoplasma hominis*
- C. *Mycoplasma orale*
- D. *Mycoplasma pneumoniae*
- E. *Ureaplasma urealyticum*

Answer: D

Members of the mycoplasma group that are pathogenic for humans include *M. pneumoniae* and *U. urealyticum*. *Mycoplasma pneumoniae* is best known as the causative agent of PAP, which may be confused clinically with influenza or legionellosis. It also is associated with arthritis, pericarditis, aseptic meningitis, and the Guillain–Barré syndrome. *M. pneumoniae* can be cultivated on special media and identified by immunofluorescence staining and “fried egg” colonies on agar. *Ureaplasma urealyticum* (once called tiny, or T. strain) has been implicated in cases of NGU. As the name implies, this organism is able to split urea, a fact of diagnostic significance. *Ureaplasma urealyticum* is part of the normal flora of the genitourinary tract, particularly in women. Both *M. orale* and *M. salivarium* are inhabitants of the normal human oral cavity. These species are commensals and do not play a role in disease. The only other species of *Mycoplasma* associated with human disease is *M. hominis*. A normal inhabitant of the genital tract of women, this organism has been demonstrated to produce an acute respiratory illness that is associated with sore throat and tonsillar exudate, but not with fever. *M. hominis* can cause disease outside the urinary tract in immunosuppressed patients or immunocompetent patients after trauma of the genitourinary tract. Other opportunistic infections known to be caused by *M. hominis* include wound infections, osteomyelitis, brain abscess, pneumonia, and peritonitis. It has been associated with neonatal pneumonia and sepsis. *Mycoplasma fermentans* is an animal isolate.

1209. A 26-year-old G1P1 comes to see you in your office for preconception counseling because she wants to get pregnant again. She denies a history of any illegal drug use but admits to smoking a few cigarettes each day and occasionally drinking some beer. When you advise her not to smoke or drink at all during this pregnancy, she gets defensive because she says she smokes and drinks very little. She says she did the same during her previous pregnancy 2 years ago and that baby “did just fine.” Which of the following statements is true regarding the effects of tobacco and alcohol on pregnancy?

- A. Cigarette smoking is associated with an increased risk of spontaneous abortion.
- B. Fetal alcohol syndrome can be diagnosed prenatally via identifying fetal anomalies on sonogram.
- C. In most studies, cigarette smoking has been associated with an increased risk of congenital anomalies.

- D. Small amounts of alcohol, such as a glass of wine or beer a day at dinnertime, are safe; only binge drinking of large amounts of alcohol has been associated with fetal alcohol syndrome.

Answer: A

Alcohol is a potent teratogen. Fetal alcohol syndrome is the most common cause of mental retardation in the United States and consists of a constellation of fetal defects including craniofacial anomalies, growth restriction, behavioral disturbances, brain defects, cardiac defects, and spinal defects. Alcohol use in pregnancy has a prevalence of 1% to 2%, and the incidence of fetal alcohol syndrome is approximately 6 in 10,000 births. No safe threshold for alcohol use during pregnancy has been established. Fetal injury can occur with as little as one drink per day, but women who engage in binge drinking are at the greatest risk. There is no way to diagnose fetal alcohol syndrome prenatally. There are many potential teratogens in cigarette smoke, including nicotine, carbon monoxide, cadmium, lead, and hydrocarbons. Smoking has been shown to cause fetal growth restriction and to be related to increased incidences of subfertility, spontaneous abortions, placenta previa, abruption, and preterm delivery. The mechanisms for these adverse effects include increased fetal carboxyhemoglobin levels, reduced uteroplacental blood flow, and fetal hypoxia. Most studies do not indicate that tobacco use is related to an increased risk of congenital malformations. Alcohol consumption in pregnancy, not tobacco use, is a common cause of mental retardation and developmental delay. However, tobacco use has been associated with attention deficit hyperactivity disorder and behavioral and learning problems.

1210. A 64-year-old right-handed woman who had breast cancer 1 year ago began having neurological problems about 1 week ago. She began experiencing nausea, vomiting, and numbness in the right hand and foot. Today she is experiencing crescendo pain in the left retroorbital area. Her headache is throbbing and positional, particularly when she tries to bend forward. The headache was intense in the morning, and at times it woke her up last night. On examination, the only deficits are loss of double simultaneous tactile stimulation and right lower facial droop when smiling. Which of the following is the best next step for this woman?

- A. Electroencephalogram
- B. MRI of the brain
- C. Prochlorperazine
- D. Zolmitriptan

Answer: B

The headache is typical of that caused by intracranial hypertension. Additionally, the patient has focal neurological symptoms and signs. This creates particular concern about a brain tumor or hemorrhage, and the patient should be evaluated as soon as possible. An appointment next month is too late. Intravenous prochlorperazine is a good treatment for status migrainosus; however, this history is atypical for such a diagnosis and more serious problems should be ruled out first in the emergency room. Zolmitriptan is a treatment for migraines. This history is not typical for migraine, and zolmitriptan is also relatively contraindicated in patients with complex migraine. This history is very atypical for seizures, and an electroencephalogram is not likely to provide useful information in this case.

1211. A 27-year-old woman presents to your office complaining of mood swings, depression, irritability, and breast pain each month in the week prior to her menstrual period. She often calls in sick at work because she cannot function when she has the symptoms. Which of the following medications is the best option for treating the patient's problem?

- A. A conjugated equine estrogen
- B. A short-acting benzodiazepine
- C. Progesterone
- D. Selective serotonin reuptake inhibitors

Answer: D

Premenstrual syndrome is a constellation of symptoms that occur in a cyclic pattern, always in the same phase of the menstrual cycle. These symptoms usually occur 7 to 10 days before the onset of menses. Examples of symptoms reported include edema, mood swings, depression, irritability, breast tenderness, increased appetite, and cravings for sweets. The etiology is unclear. Therapy has included oral contraceptives, danazol, bromocriptine, evening primrose oil, and aerobic exercise. Controlled studies have been performed with most of the different treatment regimens with variable, irreproducible, and generally disappointing results that are probably the result of patient heterogeneity because of difficulty in diagnosing this condition. Of all the medications studied, SSRIs have shown the greatest efficacy in PMS treatment.

1212. A 28-year-old woman comes to the emergency room and complains of moderate right lower quadrant abdominal pain for 3-hours with mild vaginal bleeding. Her last period was 5 weeks ago. A vaginal ultrasound is performed and showed a 2cm mass in the right adnexa without heart rates. The patient does not want an operation. Which of the following would be the best next step for this patient?

- A. Methotrexate
- B. Oral contraceptive pills
- C. Surgery
- D. clomiphene

Answer: A

This woman most likely has an ectopic pregnancy. The best next step for this woman is to give her methotrexate. Indications for methotrexate-induced abortion are fetus <3,5 cm in diameter, no heart sounds, b-hCG less than 6000 and no B9 supplementation. Contraindication for methotrexate: are immunodeficiency, hepatotoxicity, more than a 3,5cm fetus and auscultated fetal heart rate.

1213. The blood group B Rh-negative mother gave birth to her first baby who is A Rh-positive. Which of the following immunoglobulins should be given to her for prevention of complications during coming pregnancies?

- A. Ig E
- B. Ig G
- C. Ig M
- D. RhoD Ig

Answer: D

Rh disease is a type of hemolytic disease of the newborn. Most Rh disease can be prevented by treating the mother during pregnancy or promptly (within 72 hours) after childbirth. The mother has an intramuscular injection of anti-Rh antibodies (Rho(D) immune globulin). This is done so that the fetal rhesus D positive erythrocytes are destroyed before the immune system of the mother can discover them and become sensitized. This is passive immunity and the effect of the immunity will wear off after about 4 to 6 weeks (or longer depending on injected dose) as the anti-Rh antibodies gradually decline to zero in the maternal blood.

1214. Which of the following is the earliest sign of magnesium sulfate toxicity?

- A. Confusion
- B. Depression of the deep tendon reflexes
- C. Hypotension
- D. Weakness

Answer: B

1. **Magnesium sulfate** is given to women with eclampsia and severe preeclampsia in order to prevent the further development of seizures while delivery of the fetus accomplished.
2. **Depressed deep tendon reflexes** is the earliest sign of magnesium sulfate toxicity which requires stopping of the magnesium sulfate infusion and administration of calcium gluconate.
3. Delivery is the most important overall treatment of eclampsia.

1215. Which of the following is a frequent cause of female infertility?

- A. Diabetes mellitus
- B. Endometriosis
- C. Sexually Transmitted Infections
- D. Smoking

Answer: B

Infertility is the failure to conceive (regardless of cause) after 1 year of unprotected intercourse. This condition affects approximately 10-15% of reproductive-aged couples.

Female factors that affect fertility include the following categories:

1. Cervical: Stenosis or abnormalities of the mucus-sperm interaction
2. Uterine: Congenital or acquired defects; may affect endometrium or myometrium; may be associated with primary infertility or with pregnancy wastage and premature delivery
3. Ovarian: Alteration in the frequency and duration of the menstrual cycle—Failure to ovulate is the most common infertility problem
4. Tubal: Abnormalities or damage to the fallopian tube; may be congenital or acquired
5. Peritoneal: Anatomic defects or physiologic dysfunctions (eg, infection, adhesions, adnexal masses)

The most common identifiable female factors, which accounted for 81% of female infertility, were:

1. Ovulatory disorders (25%)
2. Endometriosis (15%)
3. Pelvic adhesions (12%)
4. Tubal blockage (11%)
5. Other tubal abnormalities (11%)
6. Hyperprolactinemia (7%)

1216. A 23-year-old woman comes to his primary care physician with 2 days of dysuria. Medical history is significant for a prior sexually transmitted infection that was treated with antibiotics. She says that she is sexually active with both men and women and infrequently uses condoms. On physical examination, there is no suprapubic tenderness. Which of the following is the most specific test for diagnosis in this patient?

- A. Blood culture
- B. Cervical probe and NAAT
- C. Ultrasound examination
- D. Urinalysis

Answer: D

This woman most likely has urethritis. The most specific test for this woman with urethritis is cervical probe and NAAT, which is DNA probe for gonorrhea and chlamydia test of urine. Urinalysis is the most sensitive test, not specific.

1217. A 30-year-old woman is brought to the emergency room by her father with the sudden onset of left arm paralysis. She had been recently separated from her husband. Physical examination and past medical history are unremarkable. Which of the following is the most likely diagnosis?

- A. Conversion disorder
- B. Epilepsy
- C. Malingering
- D. Movement disorders

Answer: A

1. Conversion disorder (functional neurological symptom disorder): Development of sensory or voluntary motor deficits without a recognized medical or neurologic condition to cause the deficits 2. The disorder is common in clinical settings and often has a poor prognosis. 3. Symptoms may include weakness/paralysis, tremor, dystonia, gait disturbance, dysphagia, dysphonia/dysarthria, seizures, numbness/paresthesias, visual or hearing disturbance, or any combination thereof. 4. Treatment = Simply presenting the diagnosis and educating the patient about the psychogenic nature of the deficit may lead to spontaneous resolution of symptoms in 40% to 50% of cases; second-line treatments include cognitive behavioral therapy and physical therapy; SSRIs and SNRIs are sometimes helpful

1218. A woman has ovarian cancer. Which of the following is the first lymph nodes which can have metastases from ovarian cancer?

- A. Common iliac
- B. External iliac
- C. Paraaortic
- D. Uterine

Answer: C

Lymph drain: Ovaries/testes into paraaortic Lymph nodes
Scrotum/distal 1/3 of vagina - superficial inguinal lymph nodes- then deep femoral nodes then external iliac lymph nodes clitoral region - passes directly to the deep femoral nodes All other – into external inguinal/hypogastric/obturator lymph nodes Internal iliac – rectum and superior pectinate line Inferior mesenteric – inferior pectinate, sigmoid and descending

1219. Which of the following is the most likely cause of painless and profuse vaginal bleeding in the third trimester?

- A. Cord prolapse
- B. Placenta accreta
- C. Placenta previa
- D. Vasa praevia

Answer: C

1. Placenta previa is implantation of the placenta over or near the internal os of the cervix. Typically, painless vaginal bleeding with bright red blood occurs after 20 wk gestation.
2. Although spotting may occur during the first and second trimesters of pregnancy, the first episode of hemorrhage usually begins at some point after the 28th week and is characteristically described as being sudden, painless, and profuse.
3. Painless hemorrhage is the hallmark sign of placenta previa.
4. Diagnosis is by transvaginal or abdominal ultrasonography.
5. Treatment is bed rest for minor vaginal bleeding before 36 wk gestation, with cesarean delivery at 36 wk if fetal lung maturity is documented.
6. If bleeding is severe or refractory or if fetal status is nonreassuring, immediate delivery, usually cesarean, is indicated.

1220. A 34-year-old G1P1 who delivered her first baby 5 weeks ago calls your office and asks to speak with you. She tells you that she is feeling very overwhelmed and anxious. She feels that she cannot do anything right and feels sad throughout the day. She tells you that she finds herself crying all the time and is unable to sleep at night. Which of the following is the most likely diagnosis?

- A. Maternity blues
- B. Postpartum blues
- C. Postpartum depression
- D. Postpartum psychosis

Answer: C

This patient is exhibiting classic symptoms of postpartum depression. Postpartum depression develops in about 8% to 15% of women and generally is characterized by an onset about 2 weeks to 12 months postdelivery and an average duration of 3 to 14 months. Women with postpartum depression have the following symptoms: irritability, labile mood, difficulty sleeping, phobias, and anxiety. About 50% of women experience postpartum blues, or maternity blues, within 3 to 6 days after delivering. This mood disturbance is thought to be precipitated by progesterone withdrawal following delivery and usually resolves in 10 days. Maternity blues is characterized by mild insomnia, tearfulness, fatigue, irritability, poor concentration, and depressed affect. Postpartum psychosis usually has its onset within a few days of delivery and is characterized by confusion, disorientation, and loss of touch with reality. Postpartum psychosis is very rare and occurs in only 1 to 4 in 1000 births. Bipolar disorder or manic-depressive illness is a psychiatric disorder characterized by episodes of depression followed by mania.

1221. A 51-year-old woman is diagnosed with invasive cervical carcinoma by cone biopsy. Pelvic examination and rectal-vaginal examination reveal the parametrium to be free of disease, but the upper portion of the vagina is involved with tumor. Intravenous pyelography (IVP) and sigmoidoscopy are negative, but a computed tomography (CT) scan of the abdomen and pelvis shows grossly enlarged pelvic and periaortic nodes. This patient is classified at which of the following stages?

- A. IIIa
- B. IIIb
- C. IIa
- D. IIb

Answer: C

Cervical cancer is still staged clinically. Physical examination, routine x-rays, barium enema, colposcopy, cystoscopy, proctosigmoidoscopy, and IVP are used to stage the disease. CT scan results, while clinically useful, are not used to stage the disease. Stage I disease is limited to the cervix. Stage Ia disease is preclinical (ie, microscopic), while stage Ib denotes macroscopic disease. Stage II involves the vagina, but not the lower one-third, or infiltrates the parametrium, but not out to the pelvic side wall. Stage IIa denotes vaginal but not parametrial extension, while stage IIb denotes parametrial extension. Stage III involves the lower one-third of the vagina or extends to the pelvic side wall; there is no cancer-free area between the tumor and the pelvic wall. Stage IIIa lesions have not extended to the pelvic wall, but involve the lower one-third of the vagina. Stage IIIb tumors have extension to the pelvic wall and/or are associated with hydronephrosis or a nonfunctioning kidney caused by tumor. Stage IV is outside the reproductive tract.

1222. A 19-year-old woman comes to the emergency department and reports that she fainted at work earlier in the day. She has mild vaginal bleeding. Her abdomen is diffusely tender and distended. In addition, she complains of shoulder and abdominal pain. Her temperature is 37.2°C, pulse rate is 120 beats per minute, and blood pressure is 80/42 mm Hg. Which of the following is the best diagnostic procedure to quickly confirm your diagnosis?

- A. Computed tomography of the abdomen and pelvis
- B. Culdocentesis
- C. Dilation and curettage
- D. Posterior colpotomy

Answer: B

The clinical history presented in this question is classic for a ruptured tubal pregnancy accompanied by hemoperitoneum. A CT scan of the abdomen and pelvis would not produce a quick diagnosis. Though often underutilized, culdocentesis is a rapid, nonsurgical method to confirm the presence of unclotted intraabdominal blood from a ruptured tubal pregnancy. Culdocentesis, however, is also not perfect, and a negative culdocentesis should not be used as the sole criterion for whether or not to operate on a patient. Dilation and curettage would not permit rapid enough diagnosis, and the results obtained by this procedure are variable. Posterior colpotomy requires an operating room, surgical anesthesia, and an experienced operator with a scrubbed and gowned associate. While a quantitative β -HCG confirms pregnancy, it would take over an hour to perform in the lab and it does not confirm the diagnosis of hemoperitoneum. A urine pregnancy test could be done more quickly.

1223. During a routine return OB visit, an 18-year-old G1P0 patient at 23 weeks gestational age undergoes a urinalysis. The dipstick done by the nurse indicates the presence of trace glucosuria. All other parameters of the urine test are normal. Which of the following is the most likely etiology of the increased sugar detected in the urine?

- A. The patient has a urine infection.
- B. The patient has diabetes.
- C. The patient's urinalysis is consistent with normal pregnancy.
- D. The patient's urine sample is contaminated.

Answer: C

The finding of glucosuria is common during pregnancy and usually is not indicative of a pathologic condition. During pregnancy, there is an increase in the glomerular filtration rate and a decrease in tubular reabsorption of filtered glucose. In fact, one of six women will spill glucose into the urine during pregnancy. If the patient has risk factors for diabetes, such as obesity, previous macrosomic baby, advanced maternal age, or family history of diabetes, the physician may want to screen for diabetes with a glucose challenge test. If the patient has a urinary tract infection, the dipstick will show an increase in WBCs, the presence of nitrites and blood. A contaminated urine sample would not be a cause of isolated glucosuria.

1224. A 32-year-old G5P1 presents for her first prenatal visit. A complete obstetrical, gynecological, and medical history and physical examination is done. Which of the following would be an indication for elective cerclage placement?

- A. History of loop electrosurgical excision procedure for cervical dysplasia
- B. Three second-trimester pregnancy losses without evidence of labor or abruption
- C. Three spontaneous first-trimester abortions
- D. Twin pregnancy

Answer: B

The diagnosis of cervical insufficiency or incompetence is based on the presence of painless cervical dilation with a history of pregnancy loss in the second trimester or early-third-trimester preterm delivery. A patient with a history of three or more midtrimester pregnancy losses or early preterm deliveries is a candidate for a cerclage. Cerclage is not indicated for the prevention of first-trimester losses. Cerclage has not been shown to improve the preterm delivery rate or neonatal outcome in twin gestations. A simple punch biopsy or loop electrosurgical excision procedure of the cervix is unlikely to disrupt functional structure of the cervix and prophylactic cerclage is not warranted. Serial transvaginal ultrasound evaluation of cervical length can be considered in women with a history of second and early-third-trimester deliveries. A cervical length less than 25 mm or funneling of more than 25% or both is associated with an increased risk of preterm delivery.

1225. You have just performed diagnostic laparoscopy on a 28-year-old patient with chronic pelvic pain and dyspareunia. She has been attempting to get pregnant. At the time of the laparoscopy there were multiple implants of endometriosis on the uterosacral ligaments and ovaries and several more on the rectosigmoid colon. At the time of the procedure, you ablated all of the visible lesions on the peritoneal surfaces with the CO₂ laser. Because of the extent of the patient's disease, you recommend postoperative medical treatment. Which of the following medications is the best option for the treatment of this patient's endometriosis taking into consideration that she is trying to conceive?

- A. A GnRH agonist
- B. Continuous oral estrogen
- C. Danazol

D. Dexamethasone

Answer: A

Medical treatment of endometriosis currently involves a selection of four medications—oral contraceptive pills (OCPs), continuous progestins, danazol, and GnRH analogues. Surgery, both via a laparoscopic approach and laparotomy, is also used to treat endometriosis. One of the first medical treatments for endometriosis was the uninterrupted (acyclic) administration of high-dose birth-control pills for prolonged periods of time. Today this regimen is not used as often as it once was. Progestin therapy can lead to subjective and objective improvement in patients with endometriosis. Problems with continuous progestin therapy include breakthrough bleeding and depression. Overall, however, the side effects of progestin therapy are less than those seen with other treatments in most patients. Progestin therapy is generally reserved for patients who do not desire fertility. Danazol is an isoxazol derivative of 17 α -ethinyl testosterone; it has been characterized as a pseudomenopausal treatment for endometriosis. Side effects include weight gain, edema, decreased breast size, acne, and other menopausal symptoms. GnRH agonists are a recent addition to the treatments available for endometriosis. These agents produce a medically induced and reversible menopause state. Collaborative studies have confirmed that fertility rates and symptom relief following treatment are similar between GnRH analogues and other medications. However, GnRH analogues inhibit ovulation and are not an option for women attempting pregnancy. In this patient conservative surgery with postoperative administration of a GnRH is the best treatment option considering it has fewer untoward side effects than danazol and that she is not interested in attempting pregnancy at this time. Definitive surgery (total hysterectomy with removal of both ovaries) is indicated in patients with severe disease, those who fail hormonal therapy, or in the older infertile patient. Dexamethasone is not a treatment for endometriosis, and unopposed estrogen therapy would likely exacerbate the disease. Bromocriptine is a dopamine agonist used in the treatment of hyperprolactinemia.

1226. Which of the following is considered a postpartum hemorrhage?

- A. More than 250 ml after cesarean section
- B. More than 250 ml after vaginal delivery
- C. More than 500 ml after cesarean section
- D. More than 500 ml after vaginal delivery

Answer: D

-loss of > 500 ml of blood at the time of vaginal delivery or >1000 ml with C/S -early (immediate) within first 24h PP-late (delayed): after 24h but within first 6 wk
Reference: Toronto notes 2017, OB 43.

1227. A 29-year-old woman presented with easy fatigability, constipation, and menstrual irregularities for the past 4-months. Examination revealed bradycardia, delayed deep tendon reflexes, and a non-tender thyroid enlargement. The investigation revealed thyroid peroxidase antibodies to be elevated. Which of the following drugs is most appropriate for this patient?

- A. Levothyroxine
- B. Methimazole
- C. Potassium iodide
- D. Propylthiouracil
- E. Radioactive iodine

Answer: A

This patient has Hashimoto's thyroiditis based on the symptoms and elevated thyroid peroxidase antibodies. Hashimoto's thyroiditis, also known as chronic lymphocytic thyroiditis, is an autoimmune disease in which the thyroid gland is gradually destroyed. Early on there may be no symptoms. Over time the thyroid may enlarge forming a painless goiter. Some people eventually develop hypothyroidism with its accompanying weight gain, feeling tired, constipation, depression, and general pains. After many years the thyroid typically shrinks in size. Potential complications include thyroid lymphoma. The best treatment for Hashimoto's thyroiditis is levothyroxine.

1228. Which of the following is true regarding postpartum hemorrhage?

- A. Loss of 2000 mL of blood for C-section
- B. Loss of 500 mL of blood for C-section
- C. Loss of more than 1000 mL of blood for vaginal delivery
- D. Loss of more than 500 mL of blood for vaginal delivery

Answer: D

Postpartum hemorrhage

1. Defined as a loss of > 500 mL of blood for vaginal delivery or > 1000 mL for C-section occurring before, during, or after delivery of the placenta.
2. **Uterine atony** is the most common cause of postpartum hemorrhage.
3. **Complications** include acute blood loss (potentially fatal), anemia due to chronic blood loss (predisposes to puerperal infection), and **Sheehan's syndrome** (pituitary ischemia and necrosis; the 1° cause of anterior pituitary insufficiency in adult females, most commonly presenting as failure to lactate).

1229. A 31-year-old woman comes to the physician for follow-up after an abnormal Pap test and cervical biopsy. The patient's Pap test showed a high-grade squamous intraepithelial lesion (HGSIL). This was followed by colposcopy and biopsy of the cervix. The biopsy specimen also demonstrated HGSIL. The patient was counseled to undergo a loop electrosurgical excision procedure (LEEP). Which of the following represents the potential long-term complications from this procedure?

- A. Abscess and chronic pelvic inflammatory disease
- B. Cervical incompetence and cervical stenosis
- C. Constipation and fecal incontinence
- D. Hernia and intraperitoneal adhesions
- E. Urinary incontinence and urinary retention

Answer: B

The loop electrosurgical excision procedure (LEEP) is one of the most commonly used approaches to treat high-grade cervical dysplasia (CIN II/III, HGSIL) discovered on colposcopic examination. The procedure has many advantages including low cost, high success rate, and ease of use. The procedure can be done in an office setting and usually only requires a local anesthetic, though sometimes IV sedation or a general anesthetic is used. Complications are less frequent in comparison to a cold knife conization but can include infection and hemorrhage. A survey study has indicated that the LEEP procedure does not appear to affect fertility. On the other hand, a case-control study has found an association between surgical treatment of CIN lesions and risk of infertility or subfertility, with an odds ratio of approximately 2. Scarring of the cervix is a theoretical mechanism of causing trouble conceiving. This scar tissue can be massaged or broken up in a number of ways, thus allowing the cervical opening to dilate back to normal size. A cohort study came to the result that women with a time interval from LEEP to the pregnancy of fewer than 12 months compared with 12 months or more were at significantly increased risk for spontaneous abortion, with the risk of a miscarriage of 18% compared with 4.6%, respectively. A study found that women reported a minimal, but statistically significant, decrease in sexual satisfaction following LEEP.

1230. A couple expecting their first infant in a few weeks scheduled an appointment in your pediatric clinic to get a head start on child care issues (a prenatal visit). You ask about the pregnancy course, and the mother notes that she was recently told she had oligohydramnios. At delivery of this infant, you plan to evaluate for which of the following conditions?

- A. Anencephaly
- B. Duodenal atresia
- C. Renal agenesis
- D. Tracheoesophageal fistula

Answer: C

It is generally presumed that duodenal atresia and tracheoesophageal fistula lead to hydramnios (polyhydramnios) by interference with reabsorption of swallowed amniotic fluid. Hydramnios is also associated with approximately 80% of infants who have trisomy 18. Approximately 50% of women with anencephalic fetuses have polyhydramnios. Oligohydramnios occurs in association with congenital abnormalities of the fetal kidneys, such as renal agenesis, that inhibit formation of fetal urine.

1231. An 17-year-old woman complains of cramping lower abdominal pain during menses for the past two years. She has nausea and vomiting during menses, but denies irregular or heavy periods, pain with intercourse, or abdominal pain outside of menses. The pelvic examination is normal. Which of the following the best next step in treatment this girl?

- A. Acetaminophen
- B. Minocycline
- C. NSAIDs
- D. Sertraline

Answer: C

Treatment of primary dysmenorrhea is directed at providing relief from the cramping pelvic pain and associated symptoms that typically accompany or immediately preceding the onset of menstrual flow. To date, pharmacotherapy has been the most reliable and effective treatment for relieving dysmenorrhea. Nonsteroidal anti-inflammatory drugs (NSAIDs) and combination oral contraceptives (OCs) are the most commonly used therapeutic modalities for the management of primary dysmenorrhea.

Reference:<http://emedicine.medscape.com/article/253812-medication>
<http://www.uptodate.com/contents/treatment-of-primary-dysmenorrhea-in-adult-women>

1232. A woman is unable to lactate her baby. Her delivery was complicated by vaginal bleeding that required a blood transfusion. Which of the following is the most likely diagnosis?

- A. Berry aneurysm
- B. Sheehan syndrome

- C. Sepsis shock
- D. Subarachnoidal hemorrhage

Answer: B

1. Sheehan syndrome is a rare cause of pituitary apoplexy and hypopituitarism.
2. It only occurs in postpartum females who experience large volume haemorrhage and hypovolaemic shock, either during delivery or afterwards.
3. The two most common causes of hypopituitarism in the postpartum period are Sheehan's syndrome and lymphocytic hypophysitis.
4. Patients with Sheehan's syndrome present in the postpartum period with failure to lactate and other features of pituitary hormonal deficiency.
5. Failure to lactate or difficulties with lactation are common initial symptoms of Sheehan syndrome.
6. Pathophysiology: hypovolaemia secondary to postpartum haemorrhage leads to pituitary infarction and necrosis.

Clinical presentation

Pituitary failure

1. may be silent and present with delayed hypopituitarism
2. amenorrhoea
3. adrenal insufficiency
4. hypothyroidism
5. adrenal insufficiency
6. hyponatraemia
7. growth hormone deficiency

Optic chiasm compression

1. visual field loss
2. headache
3. ophthalmoplegia

1233. A 20-year old woman presented to the clinic with a firm, painless mass in her left breast. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Fibrocystic disease
- C. Inflammatory breast carcinoma
- D. Mastitis

Answer: A

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

1234. A pregnant woman at 28 weeks gestation is brought the doctor with a high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is the most likely diagnosis in this patient?

- A. Appendicitis
- B. Ovarian torsion
- C. Pyelonephritis
- D. Renal colics

Answer: C

Pyelonephritis

1. Escherichia coli accounts for more than 70% of cases.
2. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state.
3. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms.
4. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness
5. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins.
6. Hospitalization is required if the patient has a high fever, dehydration, or other complicating medical conditions (e.g., pregnancy, diabetes).
7. Duration of antibiotic therapy depends on clinical response but should be at least 10 to 14 days. Intravenous antibiotics should be continued until the patient is afebrile.

1235. A girl 15 years old never had menses. Examination of secondary sexual characteristics is within normal limits. After 1 year she comes again with the same complaints. She is now 16-years-old. Her height and weight are within normal limits. Which of the following is most likely the diagnosis in this girl?

- A. Amenorrhea of precocious puberty
- B. Constitutional
- C. Primary amenorrhea
- D. Secondary amenorrhea

Answer: C

Primary amenorrhoea is the absence of menstruation in a woman by the age of 16. As pubertal changes precede the first period, or menarche, female children by the age of 14 who still have not reached menarche, plus having no sign of secondary sexual characteristics, such as thelarche or pubarche—thus are without evidence of initiation of puberty—are also considered as having primary amenorrhoea. Secondary amenorrhoea is where an established menstruation has ceased—for three months in a woman with a history of regular cyclic bleeding, or nine months in a woman with a history of irregular periods. This usually happens to women aged 40–55. However, adolescent athletes are more likely to experience disturbances to the menstrual cycle than athletes of any other age.

1236. Which of the following is associated with burkitts lymphoma ?

- A. EBV
- B. H pylori
- C. HBV
- D. HPV

Answer: A

<u>Oncogenic microbes</u>	<u>Associated cancer</u>
EBV	Burkitt lymphoma, Hodgkin lymphoma, nasopharyngeal carcinoma, 1° CNS lymphoma
HBV, HCV	Hepatocellular carcinoma, lymphoma
HHV-8	Kaposi sarcoma
H pylori	Gastric adenocarcinoma
HPV	Cervical and penile/anal carcinoma (types 16, 18), head and neck cancer

1237. What is the antithyroid used in first trimester of pregnancy?

- A. Levothyroxine
- B. Methimazole
- C. PTU (propylthiouracil)
- D. Potassium Iodide

Answer: C

Antithyroid drugs during pregnancy — Propylthiouracil is the drug of choice during the first trimester of pregnancy because it causes less severe birth defects than methimazole. Because there have been rare cases of liver damage in people taking propylthiouracil, some clinicians will suggest switching to methimazole after the first trimester, while others may continue propylthiouracil. For women who are nursing, methimazole is probably a better choice than propylthiouracil (to avoid liver side effects).

References:

www.uptodate.com/contents/antithyroid-drugs-beyond-the-basics
<https://www.uptodate.com/contents/antithyroid-drugs-beyond-the-basics>

1238. For which type of postpartum hemorrhage is belonged atony of uterus?

- A. Mixing
- B. Primary
- C. Secondary
- D. Tertiary

Answer: B

There are two types of postpartum hemorrhages. To primary belong: uterine atony, morbidity adherent placenta, placenta previa and uterine inversion Secondary: remaining products of conception, Mixing: cervical or vaginal tear

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3688110/>

1239. A 20-year-old female comes with complaints of insomnia every day for 6 months. Upon further questioning, the patient indicates to feeling excessive fatigue and trouble with concentrating on something. She also admits that she is no longer interested in her hobbies. The patient states that she has thought about suicide. Her BMI is 20 kg/m². Which of the following is the most likely diagnosis in this woman?

- A. Anorexia
- B. Hypothyroidism
- C. Major depressive disorder

D. Prolactinoma

Answer: C

This woman most likely has major depressive disorder. Major depressive disorder is a mental disorder characterized by at least two weeks of low mood that is present in most situations. It is often accompanied by low self-esteem, loss of interest in normally enjoyable activities, low energy, and pain without a clear cause. Major depressive disorder can negatively affect a person's personal, work, or school life, as well as sleeping, eating habits, and general health.

1240. Which of the following is a risk factor for primary postpartum hemorrhage?

- A. Congenital problems of uterus
- B. Problems with the placenta
- C. Prolonged labour
- D. The use of forceps

Answer: D

Primary PPH: within the first 24 hours PP, It can be caused due to trauma, the use of forceps and ventouse delivery.

Secondary PPH: after 24h but within first 6 weeks.

Uterine inversion usually occurs due to problems with the placenta, congenital problems of uterus, and other.

References:

<https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/heavy-bleeding-after-birth.pdf>

1241. A postmenopausal woman comes with complaints of pain during walking, sitting, or sexual intercourse. During the examination, there is cystic nodule in her labia majora. It is her fourth time she was diagnosed with Bartholin cyst. Which of the followings is the best method to prevent relapses?

- A. Antibiotic prophylaxis
- B. Aspiration

- C. Drainage
- D. Marsupialization

Answer: D

Marsupialization is the surgical technique of cutting a slit into an abscess or cyst and suturing the edges of the slit to form a continuous surface from the exterior surface to the interior surface of the cyst or abscess. Sutured in this fashion, the site remains open and can drain freely. This technique is used to treat a cyst or abscess when a single draining would not be effective and complete removal of the surrounding structure would not be desirable.

1242. A pregnant woman is diagnosed with gestational diabetes. Which of the followings is the best next step in treatment this woman?

- A. Diet, exercise and strict glucose monitoring
- B. Insulin
- C. Metformin
- D. Sulphonylurea

Answer: A

First step: Start with the ADA diet, regular exercise, and strict glucose monitoring (four times a day).

Tight maternal glucose control (fasting glucose < 100; one- to two-hour postprandial glucose < 150) improves outcomes.

Next step: Add insulin if dietary control is insufficient.

Reference: First Aid USMLE Step 2 CK 2014, page 338

1243. A 19-year-old patient presents to your office with primary amenorrhea. She has normal breast and pubic hair development, but the uterus and vagina are absent. Diagnostic possibilities include which of the following?

- A. Gonadal dysgenesis
- B. Klinefelter syndrome
- C. Mullerian agenesis
- D. XYY syndrome

Answer: C

Since this patient has other signs of pubertal development that are sex steroid-dependent, we can conclude some ovarian function is present. This excludes such conditions as gonadal dysgenesis and hypothalamic-pituitary failure as possible causes of her primary amenorrhea. Mullerian defects are the only plausible cause, and the diagnostic evaluation in this patient would be directed toward both confirmation of this diagnosis and establishment of the exact nature of the Mullerian defect. Mullerian agenesis, also known as Mayer-Rokitansky-Kuster-Hauser syndrome, presents as amenorrhea with absence of a vagina. The incidence is approximately 1 in 10,000 female births. The karyotype is 46,XX. There is normal development of breasts, sexual hair, ovaries, tubes, and external genitalia. There are associated skeletal (12%) and urinary tract (33%) anomalies. Treatment generally consists of progressive vaginal dilation or creation of an artificial vagina with split-thickness skin grafts (McIndoe procedure). Testicular feminization, or congenital androgen insensitivity syndrome, is an X-linked recessive disorder with a karyotype of 46,XY. These genetic males have a defective androgen receptor and/or downstream signal transduction mechanism (in the genome) such that the androgenic signal does not have its normal tissue-specific effects. This accounts for 10% of all cases of primary amenorrhea. The patient presents with an absent uterus and blind vaginal canal. However, in these patients the amount of sexual hair is significantly decreased. Although there is a 25% incidence of malignant tumors in these patients, gonadectomy should be deferred until after full development is obtained. In other patients with a Y chromosome, gonadectomy should be performed as early as possible to prevent masculinization. Patients with gonadal dysgenesis present with lack of secondary sexual characteristics. Patients with Klinefelter syndrome typically have a karyotype of 47, XXY and a male phenotype. Causes of primary amenorrhea, in descending order of frequency, are gonadal dysgenesis, Mullerian agenesis, and testicular feminization. XYY syndrome and Turner syndrome often present with menstrual difficulties, but these patients have a uterus.

1244. A female patient complains of being unable to get pregnant for 5 years. A complete clinical examination brought the following results: hormonal function is not impaired, a urogenital infection hasn't been found, on hysterosalpingography, both tubes were filled with the contrast medium up to the isthmic segment, the abdominal contrast was not visualized. The patient's husband is healthy. Which of the following is the best treatment option for her?

- A. Hydrotubation
- B. In-vitro fertilization
- C. Insemination with husband's sperm
- D. Laparoscopic tubal correction

Answer: B

In vitro fertilisation (IVF) is a process of fertilisation where an egg is combined with sperm outside the body, in vitro ("in glass"). The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova (egg or eggs) from the woman's ovaries and letting sperm fertilise them in a liquid in a laboratory. The fertilised egg (zygote) undergoes embryo culture for 2–6 days, and is then transferred to the same or another woman's uterus, with the intention of establishing a successful pregnancy. IVF may be used to overcome female infertility where it is due to problems with the fallopian tubes, making in vivo fertilisation difficult. It can also assist in male infertility, in those cases where there is a defect in sperm quality; in such situations intracytoplasmic sperm injection (ICSI) may be used, where a sperm cell is injected directly into the egg cell. This is used when sperm has difficulty penetrating the egg, and in these cases the partner's or a donor's sperm may be used. ICSI is also used when sperm numbers are very low. When indicated, the use of ICSI has been found to increase the success rates of IVF.

1245. Which of the following is the treatment of choice for a patient with *Neisseria gonorrhoeae*?

- A. Ceftriaxone
- B. Ceftriaxone and azithromycin
- C. Ceftriaxone and metronidazole
- D. Penicillin and doxycycline

Answer: B

Neisseria gonorrhoeae is the second most common cause of cervicitis after *Chlamydia trachomatis*. Treatment includes a 3rd-generation cephalosporin in combination with azithromycin or doxycycline. The second agent provides empiric coverage for cephalosporin-resistant gonococci as well as *C trachomatis*.

1246. The woman has a miscarriage. During pathological section, there was found the fetus with bilateral renal agenesis. Which of the following could most likely be found in the mother during pregnancy?

- A. Anemia
- B. Oligohydramnios
- C. Polyhydramnios
- D. Preeclampsia

Answer: B

Potter sequence is the atypical physical appearance of a baby due to oligohydramnios experienced when in the uterus. It includes clubbed feet, pulmonary hypoplasia and cranial anomalies related to the oligohydramnios. Oligohydramnios is the cause of Potter sequence but there are many things that can lead to oligohydramnios. It can be caused by renal diseases such as bilateral renal agenesis (BRA), atresia of the ureter or urethra causing obstruction of the urinary tract, polycystic or multicystic kidney diseases, renal hypoplasia, amniotic rupture, toxemia, or uteroplacental insufficiency from maternal hypertension.

1247. A 27-year-old G2P1 at 29 weeks gestational age, who is being followed for Rh isoimmunization presents for her OB visit. The fundal height is noted to be 33 cm. An ultrasound reveals fetal ascites and a pericardial effusion. Which of the following can be another finding in fetal hydrops?

- A. Hydrocephalus
- B. Hydronephrosis
- C. Oligohydramnios
- D. Subcutaneous edema

Answer: D

Characteristics of fetal hydrops include abnormal fluid in two or more sites such as the thorax, abdomen, and skin. Fetal hydrops occurs as a result of excessive and prolonged hemolysis which causes anemia, which stimulates erythroid hyperplasia of the bone marrow and extramedullary hematopoiesis in the liver and spleen. The placenta is also markedly erythematous, enlarged, and boggy. Hydrothorax may be so severe that it may restrict lung development and cause pulmonary compromise after delivery. Ascites, hepatomegaly, and splenomegaly may lead to severe dystocia. Hydropic changes are easily seen on fetal ultrasound.

1248. A 32-year-old woman presents to your office for her well-woman examination. She is also worried because she has not been able to achieve orgasm with her new partner, with whom she has had a relationship for the past 3 months. She had three prior sexual partners and achieved orgasm with them. Her medications include a combined oral contraceptive pill for birth control, clonidine for chronic hypertension, and fluoxetine for depression. She smokes one pack per day and drinks one drink per week. She had a cervical cone biopsy for severe cervical dysplasia 6 months ago. Which of the following is the most likely cause of her sexual dysfunction?

- A. Alcohol
- B. Birth control pills
- C. Clonidine
- D. Disruption of cervical nerve pathways

Answer: C

Clonidine, an antihypertensive agent, can cause inhibition of orgasm in women. Studies have shown that it decreases vaginal blood volume and inhibits sexual arousal. Selective serotonin reuptake inhibitors usually decrease libido. In women sensitive to hormonal changes, combination contraceptive pills can decrease free testosterone and decrease libido. Masters and Johnson identified the clitoris as the center of sexual satisfaction in women. Orgasm and sexual gratification has been associated with nerve endings in the clitoris, mons pubis, labia, and pressure receptors in the pelvis. Even though the cervix has a rich nerve supply, there is no scientific evidence that it plays a role in the sexual response.

1249. A 33-year-old pregnant woman comes with ultrasound findings of teratoma. Which of the following is a possible complication of teratoma?

- A. Anemia
- B. Fetal heart failure
- C. Premature Rupture of Membranes
- D. Uterine bleeding

Answer: B

Teratomas of germ cell origin usually are found in adult men and women, but they may also be found in children and infants. Teratomas of embryonal origin are most often found in babies at birth, in young children, and, since the advent of ultrasound imaging, in fetuses. The most commonly diagnosed fetal teratomas are sacrococcygeal teratoma (Altman types I, II, and III) and cervical (neck) teratoma. Because these teratomas project from the fetal body into the surrounding amniotic fluid, they can be seen during routine prenatal ultrasound exams. Teratomas within the fetal body are less easily seen with ultrasound; for these, MRI of the pregnant uterus is more informative. Teratomas are not dangerous for the fetus unless there is either a mass effect or a large amount of blood flow through the tumor (known as vascular steal). The vascular steal can place a strain on the growing heart of the fetus, even resulting in heart failure, and thus must be monitored by fetal echocardiography.

1250. A 28-year-old woman comes to the gynecology clinic with a two-year history of breast pain. The pain is worse just before her menses and denies any nipple discharge. Her last menstrual period was six days prior to presentation. There is no family history of breast cancer and her menstrual cycle began at 13 years of age. Physical exam reveals diffuse nodularity in the upper outer quadrants of both breasts. There is no lymphadenopathy. Which of the following is true statement about this disease?

- A. Associated with increased risk of inflammatory breast cancer
- B. Associated with increased risk of invasive ductal carcinoma
- C. Associated with increased risk of invasive lobular carcinoma
- D. Is not associated with increased risk of cancer

Answer: D

Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly. It is the most common breast lesion in women < 30 years of age. Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly.

1251. You are called to a delivery of a woman with no prenatal care; she is in active labor but has no history of amniotic rupture. The biophysical profile done in the emergency center revealed severe oligohydramnios. When you get this infant to the nursery, you should carefully evaluate him for which of the following?

- A. Anencephaly
- B. Duodenal atresia
- C. Renal agenesis
- D. Trisomy 18

Answer: C

It is generally presumed that duodenal atresia and tracheoesophageal fistula lead to hydramnios (polyhydramnios) by interference with reabsorption of swallowed amniotic fluid. Hydramnios is also associated with approximately 80% of infants who have trisomy 18. Approximately 50% of women with anencephalic fetuses have polyhydramnios. Oligohydramnios occurs in association with congenital abnormalities of the fetal kidneys or other parts of the genitourinary tract, such as renal agenesis or obstruction, that impede normal formation or excretion of fetal urine.

1252. Rickettsial organisms infect humans worldwide, although geographic locations may be limited for some species and possibly produce some challenges in medical diagnosis. All are obligate intracellular parasites, except *C. burnetii*, and transmitted by an insect vector. Typhus, spotted fever, and scrub typhus share which of the following manifestations of disease?

- A. Arthritis
- B. Common vector
- C. Fever and rash
- D. Short incubation period (<48 hours)
- E. Similar geographic distribution

Answer: C

Typhus, spotted fever, and scrub typhus are all caused by rickettsiae (*R. prowazekii*, *R. rickettsii*, and *R. tsutsugamushi*, respectively). Clinically, the diseases have several similarities. Each has an incubation period of 1 to 2 weeks, followed by a febrile period, which usually includes a rash. During the febrile period, rickettsiae can be found in the patient's blood, and there is disseminated focal vasculitis of small blood vessels. The geographic area associated with these diseases is usually different. Scrub typhus is usually found in Japan, Southeast Asia, and the Pacific, while spotted fever is usually found in the western hemisphere. Typhus has a worldwide incidence. (Typhus is caused by lice and fleas, spotted fever is caused by ticks and mites, and scrubs are caused by mites.)

1253. A 30-year-old gravida 3 para 2 presents with a pain in her flank, fever and chills. Lab results reveal positive urinalysis (presence of nitrites and white blood cells). Which of the following is the most likely diagnosis?

- A. Cervicitis
- B. Cystitis
- C. Pyelonephritis
- D. Urinary Tract Infection

Answer: C

Pyelonephritis

1. Patient presents with urinary frequency, urgency, burning, and dysuria in the

2. same way as cystitis, and there is flank pain and tenderness.

Pyelonephritis

3. is also a more severe disease, so there is a higher fever and the patient is much

4. more ill.

5. Diagnostic: Urinalysis and urine culture the same as for cystitis

6. Treatment: Any of the medications for gram-negative bacilli are effective. Ciprofloxacin is recommended for outpatient treatment.

7. For inpatient therapy use ceftriaxone, ertapenem, quinolones, ampicillin, and gentamicin.

1254. A 49-year-old patient undergoes regular medical check-up for uterine fibromyoma. Within the last year the uterus has enlarged up to 20 weeks of gestation. What is the rational way of treatment?

- A. Embolization of uterine arteries
- B. Hormonal therapy
- C. Surgical treatment
- D. Treatment with prostaglandin inhibitors

Answer: C

Hysterectomy was the classical method of treating fibroids. Although it is now recommended only as last option, fibroids are still the leading cause of hysterectomies in the US.

1255. A wife of a man diagnosed as having gonorrheal infection. She was worried about transmission of the infection from her husband. Which of the following is the best investigation to exclude gonorrhea infection?

- A. Gram stain
- B. Microscopy
- C. Nucleic acid amplification tests (NAAT)
- D. PCR

Answer: C

Neisseria gonorrhoeae, a Gram-negative diplococcus. The long-term sequelae arise from pelvic adhesions, causing chronic pain and infertility. When the active infection becomes symptomatic, it is known as acute pelvic inflammatory disease. Nucleic acid amplification tests (NAAT) of either cervical discharge or urine is the best investigation to exclude gonorrhea infection.

1256. A 30-year-old woman presents to the physician with painful, itchy vesicular lesion on the valvular area, low-grade fever, cervical motion tenderness, and white vaginal discharge. Which of the following is the most likely diagnosis?

- A. Candidiasis
- B. Herpes Zoster
- C. Herpes simplex infection
- D. Syphilis

Answer: C

Herpes Simplex Virus (HSV) 1. HSV is transmitted via close personal contact. 2. HSV-1 is transmitted chiefly by contact with infected saliva, whereas HSV-2 is transmitted sexually or from a mother's genital tract infection to her newborn. However, lesion location does not always indicate viral type. Types: 1. Type I: Ophthalmic and oral lesions. 2. Type II: Genital lesions. Clinical picture: Small painful vesicles around mouth (HSV-1) or genitals (HSV-2) lasting several days; primary infection usually presents with more severe symptoms and a flulike illness; disease affecting eyes causes impaired vision; disease affecting esophagus causes odynophagia and dysphagia. Diagnosis: Tzanck smear shows multinucleated giant cells, and intranuclear inclusion bodies. Treatment: Incurable, so treatment should be directed at minimizing symptoms and exacerbations; acyclovir, famciclovir, or valacyclovir shortens duration of recurrences and may decrease number of recurrences in patients with frequent eruptions; therapy can either be intermittent (episodic) or continuous (suppressive).

1257. A 37-year-old woman in her 32nd wk of gestation (G2P1) presents with a seizure. She has been healthy and does not smoke cigarettes, drink alcohol, or use illicit drugs. She has been poorly compliant in receiving her prenatal care. Physical examination reveals a blood pressure of 150/95 mm Hg. The patient's face and hands appear edematous. Other than the patient being postictal (confused and disoriented after the seizure), the neurologic examination is normal. The urinalysis reveals proteinuria. The rest of the patient's laboratory data is normal. Which of the following is the most likely diagnosis?

- A. Eclampsia
- B. Essential hypertension
- C. HELLP syndrome
- D. Preeclampsia
- E. Primary seizure disorder

Answer: A

Eclampsia is the onset of seizures in a woman with pre-eclampsia. Pre-eclampsia is a disorder of pregnancy in which there is high blood pressure and either large amounts of protein in the urine or other organ dysfunction. Onset may be before, during, or after delivery. Most often it is during the second half of pregnancy. The seizures are of the tonic-clonic type and typically last about a minute. Following the seizure, there is typically either a period of confusion or coma. Complications include aspiration pneumonia, cerebral hemorrhage, kidney failure, and cardiac arrest. Pre-eclampsia and eclampsia are part of a larger group of conditions known as hypertensive disorders of pregnancy.

1258. Which of the following is the best next step if during the Pap smear of 27-year-old woman you have found low grade squamous intraepithelial lesion?

- A. Colposcopy with directed biopsy
- B. HPV test
- C. Loop electrosurgical excision procedure
- D. Repeat Pap smear in 6 months

Answer: A

Colposcopy with directed biopsy is the correct answer.

Table 1. Cervical Cancer Screening Test Results Follow-up

This table shows the recommended follow-up for women who have had no prior abnormal cervical cancer screening test results. Follow-up is different when an abnormal cervical cancer screening test result occurs in a woman who has had a prior abnormal result.

	Ages 21–24	Ages 25–29	Ages 30 and Older	
			HPV Negative	HPV Positive
Normal Pap test results	Routine screening: Pap test every 3 years	Routine screening: Pap test every 3 years	Routine screening: Preferred— Co-testing* every 5 years Acceptable— Pap test alone every 3 years	Acceptable— Co-testing* in 12 months Acceptable— HPV typing†
ASC-US	Preferred— Repeat Pap test in 12 months Acceptable— Reflex HPV test‡	Preferred— Reflex HPV test‡ Acceptable— Repeat Pap test in 12 months	Repeat co-testing* in 3 years	Colposcopy
LSIL	Repeat Pap test in 12 months	Colposcopy	Preferred— Repeat Pap test in 12 months Acceptable— Colposcopy	Colposcopy
ASC-H	Colposcopy	Colposcopy	Colposcopy	Colposcopy
HSIL	Colposcopy	Immediate excisional treatment or colposcopy	Immediate excisional treatment or colposcopy	Immediate excisional treatment or colposcopy
AGC	AGC has several subcategories. The type of follow-up tests that are recommended depend on the AGC subcategory. Tests performed for follow-up include colposcopy, endocervical sampling, and endometrial sampling.			

Abbreviations: ASC-H = atypical squamous cells, cannot rule out HSIL; ASC-US = atypical squamous cells of undetermined significance; AGC = atypical glandular cells; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion.

*Co-testing: Combined Pap test and HPV test

†HPV typing: A test for the presence of HPV type 16 and HPV type 18

‡Reflex HPV test: A test for the presence of high-risk HPV types using the sample used for a Pap test

<https://www.acog.org/Patients/FAQs/Abnormal-Cervical-Cancer-Screening-Test-Results> <https://www.acog.org/-/media/For-Patients/faq187a.ashx?h=728&w=698&hash=5D397744260CB93E10B4E36AA90DBD54BA50C012>

1259. A 10-year-old boy in a malarial area of Africa was diagnosed with a poorly differentiated B-cell tumor of the jaw that was characterized by a translocation of the c-myc oncogene, t(8;14). The boy also has an elevated antibody titer to a specific viral early antigen with a restricted pattern of fluorescence. This disease is caused by which of the following?

- A. *Borrelia burgdorferi*
- B. *Chlamydia trachomatis*
- C. Cytomegalovirus
- D. Epstein–Barr virus
- E. HSV

Answer: D

Epstein–Barr virus (d), more commonly known for causing infectious mononucleosis, has been associated with several lymphomas, the first of which was Africa Burkitt lymphoma, described in the vignette. More recently, Burkitt lymphoma (outside of Africa) and Hodgkin lymphoma were added to the list. In males with congenital T-cell defects, overwhelming B-cell leukemia/lymphoma can occur. Cytomegalovirus (c) and HSV (e) are not associated with lymphoproliferative disorders; nor are *Borrelia burgdorferi* (a) or *Chlamydia trachomatis* (b). Antibodies to EBV-specific antigens are used as an aid to diagnosis of EBV-related conditions other than infectious mononucleosis. Antibodies to VCA and EBNA are more commonly ordered when the heterophile is negative and EBV infection is suspected.

1260. A 21-year-old has difficulty voiding 6 h postpartum. Which of the following is the least likely cause of her symptoms?

- A. Infusion of oxytocin after delivery
- B. Preeclampsia
- C. Urethral trauma
- D. Use of general anesthesia
- E. Vulvar hematoma

Answer: B

Preeclampsia is not a cause of postpartum urinary retention. Oxytocin, vulvar hematoma, urethral trauma during labor and general anesthesia can cause urinary retention after delivery.

1261. A 29-year-old pregnant woman is in her twenty-first week of pregnancy. She has lost three consecutive normally formed fetuses after 20 weeks gestation. During the physical examination, her uterine cervix is 4 cm dilated and membranes are intact. Which of the following is the best treatment for this woman?

- A. Bed rest
- B. Clomiphene citrate
- C. Progesterone pills
- D. Surgical cerclage

Answer: D

Cervical incompetence (or cervical insufficiency) is a medical condition of pregnancy in which the cervix begins to dilate (widen) and efface (thin) before the pregnancy has reached term. Definitions of cervical incompetence vary, but one that is frequently used is the inability of the uterine cervix to retain a pregnancy in the absence of the signs and symptoms of clinical contractions, or labor, or both in the second trimester. Cervical incompetence may cause miscarriage or preterm birth during the second and third trimesters. Another sign of cervical incompetence is funneling at the internal orifice of the uterus, which is a dilation of the cervical canal at this location. Surgical cerclage procedure to suture cervix closed until labor or rupture of membranes

1262. Which of the following is a correct period for the degeneration of zona pellucida and replaced by the underlying layer of trophoblastic cells?

- A. Before the fertilization
- B. Five days after the fertilization
- C. Immediately after the fertilization
- D. Two weeks after the fertilization

Answer: B

The zona pellucida (plural zonae pellucidae, also egg coat or pellucid zone) is a glycoprotein layer surrounding the plasma membrane of mammalian oocytes. It is a vital constitutive part of the oocyte. The zona pellucida first appears in unilaminar primary oocytes. It is secreted by both the oocyte and the ovarian follicles. In humans, five days after the fertilization, the blastocyst performs zona hatching; the zona pellucida degenerates and decomposes, to be replaced by the underlying layer of trophoblastic cells. The zona pellucida is essential for oocyte growth and fertilization.

1263. Which of the following would most likely be seen in women with polycystic ovary syndrome?

- A. Estrogen:Progesterone ratio >2:1
- B. FSH/LH ratio >2:1
- C. Progesterone :Estrogen >2:1
- D. Prolactin level

Answer: B

The ratio of LH (Luteinizing hormone) to FSH (Follicle-stimulating hormone), when measured in international units, is elevated in women with PCOS. Common cut-offs to designate abnormally high LH/FSH ratios are 2:1 or 3:1 as tested on Day 3 of the menstrual cycle. The pattern is not very sensitive; a ratio of 2:1 or higher was present in less than 50% of women with PCOS in one study.

1264. Your patient presents for her first prenatal visit. She is 27-year-old and this is her first pregnancy. She is an achondroplastic dwarf. Her husband is of normal stature. Which of the following statements should you tell her regarding achondroplasia?

- A. Achondroplasia is caused by a new genetic mutation therefore it cannot be passed on to her child.
- B. Because she has achondroplasia she has a low risk of cesarean section for delivery.
- C. She is fortunate to have lived to reproductive age.
- D. She likely has some degree of spinal stenosis which could present a difficulty with spinal or epidur

Answer: D

Achondroplasia, a congenital disorder of cartilage formation characterized by dwarfism, is associated with an autosomal dominant pattern of inheritance. However, new mutations account for 90% of all cases of the disorder. Affected women almost always require cesarean section because of the distorted shape of the pelvis. Achondroplastic fetuses, when prenatally diagnosed, should also be delivered by cesarean section to minimize trauma to the fetal neck. Women who have achondroplasia and receive adequate treatment for its associated complications generally have a normal life expectancy. The most common medical complaint in adulthood in patients with achondroplasia is symptomatic spinal stenosis.

1265. Which of the following is the most common type of fibroid?

- A. Cervical fibroids
- B. Intramural fibroids
- C. Submucous fibroids
- D. Subserous fibroids

Answer: B

Intramural fibroids are located within the muscular wall of the uterus and are the most common type. Unless they are large, they may be asymptomatic. Intramural fibroids begin as small nodules in the muscular wall of the uterus. With time, intramural fibroids may expand inwards, causing distortion and elongation of the uterine cavity. Subserosal fibroids are located on the surface of the uterus. They can also grow outward from the surface and remain attached by a small piece of tissue and then are called pedunculated fibroids. These pedunculated growths can actually detach from the uterus to become a parasitic leiomyoma. Submucosal fibroids are located in the muscle beneath the endometrium of the uterus and distort the uterine cavity; even small lesions in this location may lead to bleeding and infertility. A pedunculated lesion within the cavity is termed an intracavitary fibroid and can be passed through the cervix. Cervical fibroids are located in the wall of the cervix (neck of the uterus). Rarely, fibroids are found in the supporting structures (round ligament, broad ligament, or uterosacral ligament) of the uterus that also contain smooth muscle tissue.

1266. A 20-year-old woman who works as a kindergarten teacher presents for her routine visit at 32 weeks. Her fundal height measures 40 cm. An ultrasound reveals polyhydramnios, an appropriately grown fetus with ascites and scalp edema. The patient denies any recent illnesses, but some of the children at her school have been sick recently. What is the most likely cause of the fetal findings?

- A. Cytomegalovirus
- B. Hepatitis B
- C. Influenza A
- D. Parvovirus

Answer: D

Parvovirus is trophic for erythroid cells and can cause fetal anemia. Maternal infection can lead to fetal hydrops, abortion, or stillbirth. In susceptible adults 20% to 30% will acquire disease during school outbreaks. If a pregnant woman has diagnosis confirmed with IgM antibodies, ultrasound is done for fetal surveillance. If hydrops is diagnosed, fetal transfusion can be offered. One-third of fetuses will have spontaneous resolution of hydrops, and 85% of fetuses who receive transfusion will survive.

1267. Which of the following conditions is associated with strawberry cervix?

- A. Chlamydia! cervicitis
- B. Gonorrheal cervicitis
- C. Herpes simplex virus
- D. Trichomonas vaginitis

Answer: D

Trichomonas vaginitis

1. It usually causes gray-green, thin, frothy vaginal discharge, pruritus, dysuria, and dyspareunia, though it can be asymptomatic.
2. The most common patient complaint is vaginal discharge associated with itching, burning, and pain with intercourse.
3. Speculum Examination. Vaginal discharge is typically frothy and green. The vaginal epithelium is frequently edematous and inflamed. The erythematous cervix may demonstrate the characteristic strawberry appearance. Vaginal pH is elevated >4.5 .
4. Metronidazole is the treatment of choice and should be prescribed to both the patient and the partner.
5. Metronidazole is safe to use during pregnancy, including the first trimester.

1268. A 22-year-old pregnant woman comes at 24 weeks of pregnancy for her first visit. She has history of three premature deliveries. Her cervical length is 20 mm. Which of the following is the best next step for this woman?

- A. Immediate cerclage
- B. Inject her with progesterone
- C. Strict bed rest
- D. Terminate her pregnancy

Answer: A

Several studies have indicated that the likelihood of preterm delivery increases with decreasing cervical length. A cervical length of 25–30 mm before 32 weeks gestation seems to increase the risk of preterm delivery. If examination and ultrasound show that you have an abnormally short cervix, and you're less than 24 weeks pregnant, your practitioner may recommend "cerclage", a procedure in which she stitches a band of strong thread around your cervix to reinforce it and help hold it closed.

1269. Which of the following drugs can be safely used in pregnant women?

- A. Acetaminophen
- B. Aspirin
- C. Ibuprofen
- D. Naproxen

Answer: A

Several medications are considered safe after 12 weeks of pregnancy. These include: menthol rub on your chest, temples, and under the nose nasal strips, which are sticky pads that open congested airways cough drops or lozenges acetaminophen (Tylenol) for aches, pains, and fevers cough suppressant at night expectorant during the day calcium-carbonate (Mylanta, Tums) or similar medications for heartburn, nausea, or upset stomach plain cough syrup dextromethorphan (Robitussin) and dextromethorphan-guaifenesin (Robitussin DM) cough syrups Avoid all-in-one medications that combine ingredients to tackle many symptoms. Instead, choose single medications for the symptoms you're dealing with. You should also avoid the following medications while pregnant unless recommended by your doctor. They increase the risk for problems: aspirin (Bayer) ibuprofen (Advil, Motrin) naproxen (Aleve, Naprosyn) codeine Bactrim, an antibiotic

1270. A couple presents for evaluation of primary infertility. The evaluation of the woman is completely normal. The husband is found to have a left varicocele. If the husband's varicocele is the cause of the couple's infertility, what would you expect to see when evaluating the husband's semen analysis?

- A. Azoospermia

- B. Decreased sperm count with an increase in motility
- C. Decreased sperm count with an increase in the number of abnormal forms
- D. Increased sperm count with absent motility
- E. Increased sperm count with an increase in the number of abnormal forms

Answer: C

The incidence of varicoceles in the general population is about 15%, but 40% of males with infertility are found to have varicoceles. Because of the male anatomy and physiology, varicoceles are more likely to occur on the left side. There is no correlation between the size of the varicocele and the prognosis for fertility. The characteristic semen analysis seen with varicoceles shows a decrease in the number of spermatozoa with decreased motility and increased abnormal forms. How the varicocele causes abnormal semen quality, and the relationship between varicocele, semen abnormalities, and male infertility (especially when semen quality appears normal) is unclear.

1271. A 33-year old woman presented to the clinic with a 6-year history of bilateral breast pain, the pain gets worse during her menses. Physical examination reveals multiple bilateral small breast masses. Which of the following is the most likely diagnosis?

- A. Fibroadenoma
- B. Fibrocystic changes
- C. Inflammatory breast carcinoma
- D. Intraductal papilloma

Answer: B

Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer.

Fibroadenomas are typically smooth, rounded, mobile, painless masses; they may be mistaken for cancer. They usually develop in women during their reproductive years and may decrease in size over time. Juvenile fibroadenoma, a variant, occurs in adolescents, and unlike fibroadenomas in older women, these fibroadenomas continue to grow over time. Simple fibroadenoma does not appear to increase risk of breast cancer; complex fibroadenoma may increase risk slightly.

1272. A 35-year-old G2P1 presents to her obstetrician's office at 8 weeks gestation. She has a history of gestational diabetes and is very concerned regarding the possible risks of development this disease again. Which of the following is not a risk factor for development gestational diabetes?

- A. A previous diagnosis of gestational diabetes
- B. Being overweight
- C. Polycystic Ovary Syndrome
- D. Smoking
- E. Women over 35 years of age

Answer: D

Gestational diabetes is a condition in which a woman without diabetes develops high blood sugar levels during pregnancy. Gestational diabetes generally results in few symptoms; however, it does increase the risk of pre-eclampsia, depression, and requiring a Caesarean section. Babies born to mothers with poorly treated gestational diabetes are at increased risk of being too large, having low blood sugar after birth, and jaundice. Classical risk factors for developing gestational diabetes are: Polycystic Ovary Syndrome; A previous diagnosis of gestational diabetes or prediabetes, impaired glucose tolerance, or impaired fasting glycaemia; A family history revealing a first-degree relative with type 2 diabetes; Maternal age – a woman's risk factor increases as she gets older (especially for women over 35 years of age); Ethnicity (those with higher risk factors include African-Americans, Afro-Caribbeans, Native Americans, Hispanics, Pacific Islanders, and people originating from South Asia); Being overweight, obese or severely obese; A previous pregnancy which resulted in a child with a macrosomia (high birth weight: >90th centile or >4000 g (8 lbs 12.8 oz)); Previous poor obstetric history.

1273. Which of the following is not a normal physiological change in pregnancy?

- A. Decreases blood pressure
- B. Increase gastric motility
- C. Increase of respiration rate
- D. Respiratory alkalosis

Answer: B

Increase gastric motility is not a normal physiological change in pregnancy.

Table 2. Physiologic Changes In Pregnancy	
Cardiovascular	Increased cardiac output Increased blood volume Increased resting heart rate Decreased peripheral resistance Decreased blood pressure (second trimester)
Pulmonary	Increased respiratory rate Decreased functional residual capacity Increased tidal volume Increased minute ventilation Respiratory alkalosis
Gastrointestinal	Decreased gastric motility Decreased esophageal sphincter tone
Musculoskeletal	Increased ligament laxity

1274. A pregnant patient of yours presents to the emergency room at 20 weeks gestational age with complaints of right flank pain. The emergency room physician orders a renal sonogram as part of a workup for a possible kidney stone. The radiologist reports that no nephrolithiasis is present but reports the presence of bilateral mild hydronephrosis and hydroureter, which is greater on the right side than on the left. Which of the following statements is true regarding this sonographic finding?

- A. The bilateral hydronephrosis is of concern and an intravenous pyelogram should be ordered.
- B. The bilateral hydronephrosis is of concern, and renal function tests, including BUN and creatinine, should be ordered and closely monitored.
- C. The findings indicate that a urology consult is needed to obtain recommendations for further workup and evaluation.
- D. These findings are consistent with normal pregnancy and are not of concern.

Answer: D

Bilateral mild hydro-nephrosis and hydroureter are normal findings during pregnancy and do not require any additional workup or concern. When the gravid uterus rises out of the pelvis after 12 weeks, it presses on the ureters causing ureteral dilatation and hydronephrosis. It has also been proposed that the hydroureter and hydronephrosis of pregnancy may be due to a hormonal effect from progesterone. In the vast majority of pregnant women, ureteral dilatation tends to be greater on the right side as a result of the dextrorotation of the uterus and/or cushioning of the left ureter provided by the sigmoid colon.

1275. Which of the following is the major cause of unplanned pregnancies in women using oral contraceptives?

- A. Breakthrough ovulation at midcycle
- B. Development of antibodies
- C. Gastrointestinal malabsorption
- D. High frequency of intercourse
- E. Incorrect use of oral contraceptives

Answer: E

Several factors account for typical use effectiveness being lower than perfect use effectiveness:

mistakes on the part of those providing instructions on how to use the method

mistakes on the part of the user

conscious user non-compliance with instructions.

For instance, someone using oral forms of hormonal birth control might be given incorrect information by a health care provider as to the frequency of intake, forget to take the pill one day, or simply not go to the pharmacy on time to renew the prescription.

1276. A 48-year-old woman comes with ultrasound findings of teratoma. Which of the following is a possible complication of teratoma?

- A. Anti N-methyl-D-aspartate (NMDA) Receptor Encephalitis
- B. Intermenstrual bleeding
- C. Multiple sclerosis
- D. Myasthenia gravis
- E. Polymyositis

Answer: A

Teratomas of germ cell origin usually are found in adult men and women, but they may also be found in children and infants. Teratomas of embryonal origin are most often found in babies at birth, in young children, and, since the advent of ultrasound imaging, in fetuses. The most commonly diagnosed fetal teratomas are sacrococcygeal teratoma (Altman types I, II, and III) and cervical (neck) teratoma. Because these teratomas project from the fetal body into the surrounding amniotic fluid, they can be seen during routine prenatal ultrasound exams. Teratomas within the fetal body are less easily seen with ultrasound; for these, MRI of the pregnant uterus is more informative. Teratomas are not dangerous for the fetus unless there is either a mass effect or a large amount of blood flow through the tumor (known as vascular steal). The mass effect frequently consists of obstruction of normal passage of fluids from surrounding organs. The vascular steal can place a strain on the growing heart of the fetus, even resulting in heart failure, and thus must be monitored by fetal echocardiography. Teratomas can cause an autoimmune illness called Anti N-methyl-D-aspartate (NMDA) Receptor Encephalitis. After surgery, there is a risk of regrowth in place, or in nearby organs. Teratomas are not associated with vaginal bleeding.

1277. A 20-year-old primigravid woman is unable to lactate her baby. Her delivery was complicated by vaginal bleeding that required blood transfusion. Which of the following is the most likely diagnosis?

- A. Berry aneurysm
- B. Sheehan syndrome
- C. Sepsis
- D. Subarachnoidal hemorrhage

Answer: B

1. Sheehan syndrome is a rare cause of pituitary apoplexy and hypopituitarism.
2. It only occurs in postpartum females who experience large volume haemorrhage and hypovolaemic shock, either during delivery or afterwards.
3. The two most common causes of hypopituitarism in the postpartum period are Sheehan's syndrome and lymphocytic hypophysitis.
4. Patients with Sheehan's syndrome present in the postpartum period with failure to lactate and other features of pituitary hormonal deficiency.
5. Failure to lactate or difficulties with lactation are common initial symptoms of Sheehan syndrome.
6. Pathophysiology: hypovolaemia secondary to postpartum haemorrhage leads to pituitary infarction and necrosis.

Clinical presentation

Pituitary failure

1. may be silent and present with delayed hypopituitarism
2. amenorrhoea
3. adrenal insufficiency
4. hypothyroidism
5. adrenal insufficiency
6. hyponatraemia
7. growth hormone deficiency

Optic chiasm compression

1. visual field loss
2. headache
3. ophthalmoplegia

1278. A mother brings her daughter in to see you for consultation. The daughter is 17 years old and has not started her period. She is 4 ft 10 in tall. She has no breast budding. On pelvic examination, she has no pubic hair. By digital examination, the patient has a cervix and uterus. The ovaries are not palpable. As part of the workup, serum FSH and LH levels are drawn and both are high. Which of the following is the most likely reason for delayed puberty and sexual infantilism in this patient?

- A. Gonadal dysgenesis
- B. Kallmann syndrome
- C. McCune-Albright syndrome

D. Testicular feminization

Answer: A

Delayed puberty is a rare condition, usually differentiated into hypergonadotropic (high FSH and LH levels) hypogonadism or hypogonadotropic (low FSH and LH) hypogonadism. The most common cause of hypergonadotropic hypogonadism is gonadal dysgenesis (ie, the 45, X Turner syndrome). Hypogonadotropic hypogonadism can be seen in patients with hypothalamic-pituitary or constitutional delays in development. Kallmann syndrome presents with amenorrhea, infantile sexual development, low gonadotropins, normal female karyotype, and anosmia (the inability to perceive odors). In addition to these conditions, many other types of medical and nutritional problems can lead to this type of delayed development (eg, malabsorption, diabetes, regional ileitis, and other chronic illness). Congenital adrenal hyperplasia leads to early pubertal development, although in girls the development is not isosexual (not of the expected sex) and would therefore include hirsutism, clitoromegaly, and other signs of virilization. Complete Mullerian agenesis is a condition in which the Mullerian ducts either fail to develop or regress early in fetal life. These patients have a blind vaginal pouch and no upper vagina, cervix, or uterus, and they present with primary amenorrhea. However, because ovarian development is not affected, secondary sexual characteristics develop normally despite the absence of menarche, and gonadotropin levels are normal. The McCune-Albright syndrome involves the constellation of precocious puberty, cafe au lait spots, and polyostotic fibrous dysplasia.

1279. A 23-year-old woman has a progressive increase in her serum beta-human chorionic gonadotropin (beta-hCG) concentrations during an 8-week period. A hydatidiform mole is removed, but the beta-hCG concentration continues to increase. Which of the following is the most likely diagnosis ?

- A. A second noninvasive mole
- B. Adrenal adenoma
- C. Choriocarcinoma
- D. Ectopic pregnancy
- E. Pituitary insufficiency

Answer: C

Choriocarcinoma is a malignant, trophoblastic cancer, usually of the placenta. It is characterized by early hematogenous spread to the lungs. Choriocarcinoma of the placenta during pregnancy is preceded by: 1) hydatidiform mole (50% of cases) 2) spontaneous abortion (20% of cases) 3) ectopic pregnancy (2% of cases) 4) normal term pregnancy (20–30% of cases) The typical symptoms of choriocarcinoma are increased quantitative chorionic gonadotropin levels, vaginal bleeding, shortness of breath, hemoptysis and chest pain. Since gestational choriocarcinoma contains paternal DNA, it is exquisitely sensitive to chemotherapy. The cure rate, even for metastatic gestational choriocarcinoma, is around 90–95%.

1280. Which of the following is the most common primary symptom of premenstrual dysphoric disorder?

- A. Bloating
- B. Breast tenderness
- C. Hypersomnia
- D. Irritability

Answer: D

1. The most common primary symptom of premenstrual dysphoric disorder (PMDD) is **irritability**. The common symptoms of breast pain and bloating differ from those of women with a major depressive disorder.
2. Premenstrual dysphoric disorder (PMDD) is a diagnosis used to indicate serious premenstrual distress with associated deterioration in functioning.
3. PMDD is characterized by depressed or labile mood, anxiety, irritability, anger, and other symptoms occurring exclusively during the 2 weeks preceding menses.
4. **Clinical features:** Weight gain, headache, abdominal or pelvic pain, abdominal bloating, change in bowel habits, food cravings, mood lability, depression, fatigue, irritability; breast tenderness, edema, abdominal tenderness, acne
5. Findings precede menses and occur at similar time points in each cycle
6. **SSRIs** are the treatment of choice. SSRIs increase extracellular serotonin by blocking the presynaptic receptor.

1281. Which of the following could be prevented by hormonal replacement therapy?

- A. Coronary artery disease
- B. Gallbladder disease
- C. Postmenopausal symptoms
- D. Stroke

Answer: C

Indications of HRT: primary indication is treatment of menopausal symptoms (short-term). It can be use to prevent/treat osteoporosis (long-term) and premature ovarian failure. Reference: http://www.guidelines.co.uk/obstetrics_gynaecology_urology_mm_hrt#.Vkl_qM

1282. A 23-year-old female comes to an emergency room with severe right lower abdominal pain and vaginal bleeding. She has a history of amenorrhea for 2 months. Which of the following is the most likely diagnosis in the patient?

- A. Acute appendicitis
- B. Diverticulitis
- C. Pyelonephritis
- D. Rupture of tubal pregnancy.

Answer: D

The classic triad of ectopic pregnancy for diagnosis: pain (abdominal), amenorrhea, vaginal bleeding. Reference: First Aid USMLE Step 2 CK 2014 ,35

1283. A patient noticed blood on a toilet paper after wiping the vagina. Also, she noticed moderate pain during and vaginal discharge after sexual intercourse. Which of the following is the most likely diagnosis in this woman?

- A. Ovarian
- B. Urethra
- C. Uterine cervix
- D. Vulva

Answer: C

The early stages of cervical cancer may be completely free of symptoms. Vaginal bleeding, contact bleeding (one most common form being bleeding after sexual intercourse), or (rarely) a vaginal mass may indicate the presence of malignancy. Also, moderate pain during sexual intercourse and vaginal discharge are symptoms of cervical cancer. Early signs of cervical cancer are vaginal discharge containing a streak of light blood smeared on toilet paper after wiping the vagina. References: <http://www.healthline.com/health/cervical-cancer/symptoms#symptoms2> <http://www.womens-health-advice.com/cervical-cancer/symptoms.html> <http://www.womens-health-advice.com/cervical-cancer/symptoms.html>

1284. A 31-year-old gravida 3 para 2 presents with a pain in her flank, fever and chills. Lab results reveal positive urinalysis (presence of nitrites and white blood cells). Which of the following is the best next step for diagnosis in the patient?

- A. Complete blood count
- B. Cystoscopy
- C. Speculum examination
- D. Urinalysis and urine culture

Answer: D

Pyelonephritis¹. Patient presents with urinary frequency, urgency, burning, and dysuria in the² same way as cystitis, and there is flank pain and tenderness. Pyelonephritis³ is also a more severe disease, so there is a higher fever and the patient is much⁴ more ill.⁵ Diagnostic: Urinalysis and urine culture the same as for cystitis⁶. Treatment: Any of the medications for gram-negative bacilli are effective. Ciprofloxacin is recommended for outpatient treatment. ⁷ For inpatient therapy use ceftriaxone, ertapenem, quinolones, ampicillin, and gentamicin.

1285. Which of the following is true regarding hereditary angioedema?

- A. Clinical presentation is usually at an older age
- B. It is related to excessive amyloid deposition.
- C. Mild trauma, pregnancy, and ingestion of certain foods may trigger attacks.
- D. Treatment involves dehydroepiandrosterone (DHEA) administration

Answer: C

1. **Hereditary angioedema** and **acquired angioedema** (acquired C1 inhibitor deficiency) are caused by deficiency or dysfunction of C1 inhibitor, a protein that regulates the classical complement activation pathway.
2. C1 inhibitor deficiency or dysfunction results in increased levels of bradykinin because C1 inhibitor inhibits activated kallikrein (required for the generation of bradykinin) in the kinin system pathway.
3. **Onset is usually during childhood or adolescence (hereditary) or during later adulthood (acquired)**, often in patients with a neoplastic or an autoimmune disorder.
4. **Triggers:** In all forms of hereditary and acquired angioedema, attacks can be precipitated by mild trauma (eg, dental work, tongue piercing), viral illness, cold exposure, pregnancy, or ingestion of certain foods; angioedema may be aggravated by emotional stress.
5. **Symptoms and signs** are similar to those of other forms of bradykinin-mediated angioedema, with asymmetric and mildly painful swelling that often involves the face, lips, and/or tongue. Swelling may also occur on the back of hands or feet or on the genitals.
6. Pruritus, urticaria, and bronchospasm do not occur, but laryngeal edema may be present, causing stridor (and sometimes death).
7. **Diagnosis** is by measurement of complement levels.
8. C1 inhibitor is used to treat acute attacks.
9. **Prophylaxis** is with attenuated androgens, which increase C1 inhibitor levels.

1286. A pregnant woman has twins. Which of the following is the best time to check chorionicity and amnionicity of twins?

- A. Early 2nd trimester
- B. Early 3rd trimester
- C. Late 2nd trimester
- D. Late 3rd trimester

Answer: A

-U/S determination of chorionicity better to be done within the first trimester ideally (8-12 wk GA)* Ultrasonography is an effective prenatal tool for determining amnionicity and chorionicity. The optimal time for performing the ultrasound examination is in the first or early second trimester (update)References:Toronto notes 2017, OB21.
<https://radiopaedia.org/articles/twin-pregnancy-1>

1287. A 21-year old lactating mother comes to the doctor with left breast pain that started few days ago. The pain is associated with fever and fatigue. Examination shows tenderness, and swelling of the left breast. Which of the following is the most likely diagnosis?

- A. Fat necrosis of the breast
- B. Fibrocystic disease
- C. Inflammatory breast carcinoma
- D. Mastitis

Answer: D

Breast infections (mastitis) cause pain, erythema, and swelling; an abscess can produce a discrete mass. Infections are extremely rare except during the puerperium (postpartum) or after penetrating trauma. They may occur after breast surgery. Puerperal mastitis, usually due to *Staphylococcus aureus*, can cause massive inflammation and severe breast pain, sometimes with an abscess. If infection occurs under other circumstances, an underlying cancer should be sought promptly usually an inflammatory breast carcinoma, an uncommon form of breast cancer. It presents as erythematous and edematous plaque with a “peau d’orange” appearance overlying a breast mass, commonly with axillary lymphadenopathy. Fibrocystic changes (previously, fibrocystic disease) is a catchall term that refers to mastalgia, breast cysts, and nondescript masses (usually in the upper outer part of the breast); these findings may occur in isolation or together. Breasts have a nodular and dense texture and are frequently tender when palpated. Fibrocystic changes cause the most commonly reported breast symptoms and have many causes. Fibrocystic changes are not associated with increased risk of cancer. Fat necrosis of the breast is associated with breast trauma or surgery (e.g. reduction mammoplasty). Fat necrosis can mimic breast cancer in its clinical and radiographic features as fixed mass, skin or nipple retraction, evidence of calcification on mammography and appears solid (hypoechoic mass) on ultrasonography. Breast malignancy has micro-calcification, while fat necrosis has coarse calcification. Excisional, core or fine needle biopsy is diagnostic and shows fat globules and foamy histocytes. No treatment is indicated, as it is a self-limited condition.

1288. A 30-year-old woman presents to the doctor with high fever, dysuria, flank pain, nausea, and vomiting. Which of the following is least likely the cause of her symptoms?

- A. *Escherichia coli*
- B. *Klebsiella*
- C. *Staphylococcus aureus*
- D. *Staphylococcus saprophyticus*

Answer: A

Pyelonephritis 1. Infection of renal parenchyma most commonly caused by *Escherichia coli*; *Staphylococcus saprophyticus*, *Klebsiella*, and *Proteus* are less common pathogens; *Candida* is a potential cause in immunocompromised patients. 2. *Escherichia coli* accounts for more than 70% of cases. 3. Most commonly occurs as sequelae of ascending urinary tract infection (UTI). 4. In pregnant patients, asymptomatic bacteriuria increases the risk of developing cystitis and pyelonephritis more than in the non-pregnant state. 5. Asymptomatic bacteriuria is a positive urine culture in the absence of urinary tract symptoms. 6. Risk factors: urinary obstruction, immunocompromise, history of previous pyelonephritis, diabetes mellitus (DM), sexual intercourse >3 times/week, spermicide use. 7. Clinical features: flank pain, chills, nausea, vomiting, urinary frequency, dysuria, urgency; fever (38°C), costovertebral tenderness. 8. Recommended antibiotics in pregnancy are ampicillin, nitrofurantoin, or first generation oral cephalosporins. 9. Complications: increased risk of preterm labor and low birth weight in pregnant women

1289. A 26-year-old female acutely develops lower abdominal pain and vaginal bleeding. While in the bathroom she passes a cast of tissue composed of clot material and then collapses. She is brought to the hospital, where a physical examination reveals a soft, tender mass in right adnexa and pouch of Douglas. Histologic examination of the tissue passed in the bathroom reveals blood clots and decidualized tissue. No chorionic villi or trophoblastic tissue are present. Which one of the following conditions is most likely present in this individual ?

- A. Aborted intrauterine pregnancy
- B. Complete hydatidiform mole
- C. Ectopic pregnancy
- D. Endometrial hyperplasia
- E. Partial hydatidiform mole

Answer: C

Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock. With very rare exceptions the fetus is unable to survive.

1290. When is recommended routine screening for vaginal strep B for pregnant women?

- A. 25 wks
- B. 30 wks
- C. 35 wks
- D. 40 wks

Answer: C

CDC has recommended routine screening for vaginal strep B for all pregnant women. This screening is performed between the 35th and 37th week of pregnancy

1291. During the ultrasound examination of the fetus, there was found one single umbilical artery in the umbilical cord. Which of the following is correct regarding this findings?

- A. It does not necessarily indicate any problems
- B. The baby most likely has cardiac abnormalities
- C. The fetus most likely has Down syndrome
- D. There is high rate of miscarriage

Answer: A

Occasionally, there is only the one single umbilical artery (SUA) present in the umbilical cord. Approximately this affects between 1 in 100 and 1 in 500 pregnancies, making it the most common umbilical abnormality. It is more common in multiple births. Its cause is not known. Most cords have one vein and two arteries. The vein carries oxygenated blood from the placenta to the baby and the arteries carry deoxygenated blood from the baby to the placenta. In approximately 1% of pregnancies there are only two vessels —usually a single vein and single artery. In about 75% of those cases, the baby is entirely normal and healthy and the missing artery isn't missed at all. One artery can support a pregnancy and does not necessarily indicate problems. SUA does increase the risk of the baby having cardiac, skeletal, intestinal or renal problems. The occurrence of a single umbilical artery is thought to be due to secondary atresia or atrophy rather than primary agenesis of the artery. the absence of the left umbilical artery is much more common (~70%).

1292. A 22-year-old has just been diagnosed with toxoplasmosis. You try to determine what her risk factors were. The highest risk association is which of the following?

- A. Eating raw fish
- B. Eating raw meat
- C. Having viral infections in early pregnancy
- D. Owning a dog

Answer: B

Toxoplasmosis, a protozoal infection caused by *T gondii*, can result from ingestion of raw or undercooked meat infected by the organism or from contact with infected cat feces. The French, because their diet includes raw meat, have a high incidence. The incidence of toxoplasmosis in pregnant women is estimated to be 1 in every 150 to 700 pregnancies. Infection early in pregnancy may cause abortion; later in pregnancy, the fetus may become infected. A small number of infected infants develop involvement of the central nervous system or the eye; most infants who have the disease, however, escape serious clinical problems.

1293. A 54-year-old woman undergoes a laparotomy because of a pelvic mass. At exploratory laparotomy, a unilateral ovarian neoplasm is discovered that is accompanied by a large omental metastasis. Frozen section diagnosis confirms metastatic serous cystadenocarcinoma. Which of the following is the most appropriate intraoperative course of action?

- A. Excision of the omental metastasis and ovarian cystectomy
- B. Excision of the omental metastasis and unilateral oophorectomy
- C. Omentectomy and ovarian cystectomy
- D. Omentectomy, total abdominal hysterectomy, and bilateral salpingo-oophorectomy

Answer: D

The survival of women who have ovarian carcinoma varies inversely with the amount of residual tumor left after the initial surgery. At the time of laparotomy, a maximum effort should be made to determine the sites of tumor spread and to excise all resectable tumor. Although the uterus and ovaries may appear grossly normal, there is a relatively high incidence of occult metastases to these organs; for this reason, they should be removed during the initial surgery. Ovarian cancer metastasizes outside the peritoneum via the pelvic or para-aortic lymphatics, and from there into the thorax and the remainder of the body.

1294. A 21-year-old G0 female presents to your office for a routine annual gynecologic examination. She reports that she has previously been sexually active, but currently is not dating anyone. She has had three sexual partners in the past and says she diligently used condoms. She is a senior in college and is doing well academically and has many friends. She lives at home with her parents and a younger sibling. She denies any family history of medical problems, but says her 80-year-old grandmother was recently diagnosed with breast cancer. She denies any other family history of cancer. She says she is healthy and has no history of medical problems or surgeries. She reports having had chicken pox. She smokes tobacco and drinks beer occasionally, but denies any illicit drug use. Her menses started at age 13 and are regular and light. She denies any dysmenorrhea. Her blood pressure is 90/60 mm Hg. Her height is 5 ft 6 in and she weighs 130 lb. Based on this patient's history, what would be the most likely cause of death if she were to die at age 21?

- A. Cancer
- B. Heart disease
- C. Homicide

- D. Motor vehicle accidents
- E. Suicide

Answer: D

The leading causes of death in adults between the ages of 19 and 39 years old, in order of decreasing frequency, are as follows: malignant neoplasms, accidents, diseases of the heart, suicide, HIV infection, homicide, cerebrovascular accidents, diabetes, liver diseases, and chronic respiratory diseases.

1295. A woman with an ectopic pregnancy of 2.5*3.0 cm size. Her urinary b-hCG is 5000. The patient is stable. Which of the following is the best treatment option for this woman?

- A. D&C
- B. Laparoscopy
- C. Laparotomy
- D. Methotrexate, if not available laparoscopy
- E. Wait until 5 cm in diameter

Answer: D

Early treatment of an ectopic pregnancy with methotrexate is a viable alternative to surgical treatment. If administered early in the pregnancy, methotrexate terminates the growth of the developing embryo; this may cause an abortion, or the developing embryo may then be either resorbed by the woman's body or pass with a menstrual period. Contraindications include liver, kidney, or blood disease, as well as an ectopic embryonic mass > 3.5 cm. Surgeons use laparoscopy or laparotomy to gain access to the pelvis and can either incise the affected Fallopian and remove only the pregnancy (salpingostomy) or remove the affected tube with the pregnancy (salpingectomy). Laparoscopy is less invasive than laparotomy. Source: <http://bestpractice.bmj.com/best-practice/monograph/174/treatment/step-by-step.html>

1296. Which of the following is the presentation of a fetus where can be felt nose, chin, and mouth?

- A. Breech presentation
- B. Brow presentation
- C. Cephalic presentation

D. Face presentation

Answer: D

In a face presentation, the fetal head and neck are hyperextended, causing the occiput to come in contact with the upper back of the fetus while lying in a longitudinal axis. The presenting portion of the fetus is the fetal face between the orbital ridges and the chin. The fetal chin (mentum) is the point designated for reference during an internal examination through the cervix. The occiput of a vertex is usually hard and has a smooth contour, while the face and brow tend to be more irregular and soft. Like the occiput, the mentum can present in any position relative to the maternal pelvis.-face presentation head fully extended-mentum posterior always require C/S, mentum anterior can deliver vaginally.-In brow the chin is not included, and head is partially extended and requires C/S.* In face presentation the fetal neck is sharply deflexed, allowing the occiput to touch the back and the face (from forehead to chin) to present in the birth canal (uptodate)References:<http://emedicine.medscape.com/article/262341-overview>Toronto notes 2017, OB 31.

1297. A 65-years-old female comes to the office with complaints that she suddenly wakes up at night with the strong desire to urinate, but she urinates before arriving at the bath. Which of the following is most likely diagnosis in this patient?

- A. Functional incontinence
- B. Stress incontinence
- C. Urethral diverticula
- D. Urge incontinence

Answer: D

Urge incontinence is a condition where there is a frequent feeling of needing to urinate with loss of bladder control to a degree that it negatively affects a person's life. Urge incontinence is characterized by a group of four symptoms: urgency, urinary frequency, nocturia. Reference: First Aid USMLE Step 2 CK 2014, page 389

1298. A 60-year-old woman presents to the physician with vaginal dryness, dyspareunia, dysuria and increased urinary frequency. Examination shows scarce pubic. Which of the following is the most likely diagnosis?

- A. Atrophic vaginitis
- B. Lichen sclerosis
- C. Urinary Tract Infection
- D. Vaginal cancer

Answer: A

1. Menopause is the result of permanent loss of estrogen. Menopause occurs in patients aged 48 to 52.
2. Symptoms of menopause include irregular or absent menses, heat intolerance, flushing, insomnia, dyspareunia and night sweats.
3. Vaginal atrophy (atrophic vaginitis) is characterized by dryness, inflammation, and thinning of the epithelial lining of the vagina and lower urinary tract due to loss of estrogen.
4. Vaginal atrophy presents with vaginal dryness and dysuria, and physical exam findings of pale, dry vaginal mucosa, diminished labial fat pad, and scarce pubic hair.
5. It typically occurs in menopausal women.
6. Atrophic vaginitis is treated with estrogen

1299. A 26-year-old female acutely develops lower abdominal pain and vaginal bleeding. While in the bathroom she passes a cast of tissue composed of clot material and then collapses. She is brought to the hospital, where a physical examination reveals a soft, tender mass in right adnexa and pouch of Douglas. Histologic examination of the tissue passed in the bathroom reveals blood clots and decidualized tissue. No chorionic villi or trophoblastic tissue are present. Which one of the following conditions is most likely present in this individual?

- A. Complete hydatidiform mole
- B. Ectopic pregnancy
- C. Endometrial hyperplasia
- D. Partial hydatidiform mole

Answer: B

Ectopic pregnancy, also known as tubal pregnancy, is a complication of pregnancy in which the embryo attaches outside the uterus. Signs and symptoms classically include abdominal pain and vaginal bleeding. Less than 50 percent of affected women have both of these symptoms. The pain may be described as sharp, dull, or crampy. Pain may also spread to the shoulder if bleeding into the abdomen has occurred. Severe bleeding may result in a fast heart rate, fainting, or shock. With very rare exceptions the fetus is unable to survive.

1300. Which of the following is an absolute contraindication for IUD placement ?

- A. Endometriosis
- B. History of an ectopic pregnancy
- C. History of deep venous thrombosis
- D. Ongoing pelvic infection

Answer: D

Intrauterine contraception (IUD) is the most commonly used method of long-acting reversible contraception because of its high efficacy and safety, ease of use, and low cost.

There are 2 main types of IUDs:

1. Copper
2. Levonorgestrel â€”

Complications from IUD placement are relatively rare. The most common complication is IUD expulsion.

Pregnancy with an IUD in situ increases risk for miscarriage, ectopic pregnancy, & premature birth.â€”

IUD use is contraindicated:

1. Absolute contraindications for IUD use include the following:
2. Pregnancy
3. Significantly distorted uterine anatomy (e.g. fibroids, congenital or acquired uterine abnormality)
4. Cervical, endometrial or ovarian cancer awaiting treatment
5. Unexplained vaginal bleeding concerning for pregnancy or pelvic malignancy
6. Gestational trophoblastic disease with persistently elevated beta-human chorionic gonadotropin levels
7. Ongoing pelvic infection (eg, pelvic inflammatory disease, untreated cervicitis, puerperal sepsis, immediate postabortion or postpartum infection, endomyometritis, pelvic tuberculosis)

IUD use is safe:

1. History of pelvic surgery
2. History of deep venous thrombosis
3. History of an ectopic pregnancy
4. History of migraine headaches
5. Hypertension or any heart disease
6. Diabetes
7. Anemia
8. Endometriosis
9. Smoking

1301. -A pregnant lady in her first trimester did not have any vaccination for measles. Which of the following is the best next step for this woman?

- A. Don't give the vaccine.
- B. Give MMR immediately
- C. Give the MMR in the second trimester
- D. Give MMR in the third trimester

Answer: A

Remember that MMR, varicella, and HPV vaccines are contraindicated during pregnancy. So if the Pt is not immunized give MMR vaccine after delivery-The measles, mumps, rubella, and chickenpox (varicella) vaccines are particularly important for women of childbearing age who are susceptible to these infections and who may become pregnant because these vaccines are contraindicated during pregnancy, and infection occurring in non-immune pregnant women can adversely affect pregnancy outcome. Reference: Hacker and Moore's, page 10, 5th edition <https://www.uptodate.com/contents/vaccination-during-pregnancy-beyond-the-basics>

1302. A 9-year-old girl has breast and pubic hair development. Evaluation demonstrates a pubertal response to a GnRH-stimulation test and a prominent increase in luteinizing hormone (LH) pulses during sleep. These findings are characteristic of patients with which of the following?

- A. Central precocious puberty
- B. Iatrogenic sexual precocity
- C. Premature thelarche
- D. Theca cell tumors

Answer: A

These GnRH results and LH pulses are seen in normal puberty. Normal signs of puberty involve breast budding (thelarche, 9.8 years), pubic hair (pubarche, 10.5 years), and menarche (12.8 years). Besides an increase in androgens and a moderate rise in FSH and LH levels, one of the first indications of puberty is an increase in the amplitude and frequency of nocturnal LH pulses. In patients with idiopathic true precocious puberty, the pituitary response to GnRH is identical to that in girls undergoing normal puberty. Iatrogenic sexual precocity (ie, the accidental ingestion of estrogens), premature thelarche, and ovarian tumors are examples of sexual precocity independent of GnRH, FSH, and LH function.

1303. A woman complains about having amenorrhea for 3 years. She associates it with difficult labor complicated by massive hemorrhage. She also complains of loss of weight, hair fragility, and loss, lack of appetite and depression. Objective examination reveals no pathological changes of the uterus and ovaries. Which of the following is the most likely the disease pathogenesis?

- A. Hyperproduction of androgens
- B. Hyperproduction of estrogens
- C. Hypoproduction of gonadotropin
- D. Hypoproduction of progesterone

Answer: C

Sheehan's syndrome, also known as postpartum pituitary gland necrosis, is hypopituitarism (decreased functioning of the pituitary gland), caused by ischemic necrosis due to blood loss and hypovolemic shock during and after childbirth. Hormonal assay : there may be low level of T4, TSH, Estrogen, Gonadotropin, Cortisol and ACTH depending on the extent of necrosis.

1304. A 34-year-old G2P1 at 31 weeks gestation with a known placenta previa is admitted to the hospital for vaginal bleeding. The patient continues to bleed heavily and you observe persistent late decelerations on the fetal heart monitor with loss of variability in the baseline. Her blood pressure and pulse are normal. You explain to the patient that she needs to be delivered. The patient is delivered by cesarean section under general anesthesia. The baby and placenta are easily delivered, but the uterus is

noted to be boggy and atonic despite intravenous infusion of Pitocin. Which of the following is contraindicated in this patient for the treatment of uterine atony?

- A. Methylergonovine (Methergine) administered intramuscularly
- B. Misoprostol (Cytotec) suppositories
- C. Prostaglandin F2 α (Hemabate) suppositories
- D. Terbutaline administered intravenously

Answer: D

Methylergonovine, prostaglandin F2 α , prostaglandin E1 (Misoprostol), and prostaglandin E2 are all uterotonic agents that can be used in situations where there is a postpartum hemorrhage caused by uterine atony. Terbutaline would be contraindicated in this situation because it is a tocolytic that is used to promote uterine relaxation.

1305. Which of the following medications is the most safest during breast-feeding?

- A. Bromocriptine
- B. Cyclosporine
- C. Methyldopa
- D. Metronidazole

Answer: C

Certain medications are contraindicated during breast-feeding, including quinolone antibiotics, tetracycline, chloramphenicol, bromocriptine, cyclosporine, cyclophosphamide, doxorubicin, methotrexate, lithium, and ergotamine. Other drugs that have relative contraindications include metronidazole, sulfonamides, salicylates, phenobarbital, other psychotropic medication, and antihistamines. Caffeine in large amounts should also be avoided. In addition, recreational drugs (e.g., alcohol, cocaine, marijuana) should be avoided.

1306. Which of the following is an amount of bleeding in menorrhagia?

- A. 100 mL
- B. 40 mL
- C. 60 mL
- D. 80 mL

Answer: A

A normal menstrual cycle is 21–35 days in duration, with bleeding lasting an average of 5 days and total blood flow between 25 and 80 mL. Menorrhagia is defined as total menstrual flow >80ml per cycle, or soaking a pad/tampon every 2 hours or less.

1307. On postpartum day 2 after a vaginal delivery, a 32-year-old G2P2 develops acute shortness of breath and chest pain. Her vital signs are blood pressure 120/80 mm Hg, pulse 130 beats per minute, respiratory rate 32 breaths per minute, and temperature 37.6°C (99.8°F). She has new onset of cough. She appears to be in mild distress. Lung examination reveals clear bases with no rales or rhonchi. The chest pain is reproducible with deep inspiration. Cardiac examination reveals tachycardia with 2/6 systolic ejection murmur. Pulse oximetry reveals an oxygen saturation of 88% on room air and oxygen supplementation is initiated. Which of the following is the best diagnostic tool to confirm the diagnosis?

- A. Arterial blood gas
- B. CT angiography
- C. Chest x-ray
- D. Lower extremity Dopplers

Answer: B

The patient most likely has a pulmonary embolism. The reported incidence of postpartum pulmonary embolism (PE) is 1 in 2700 to 1 in 7000. The classic triad—hemoptysis, pleuritic chest pain, and dyspnea—appears in only 20% of cases. The most common sign on physical examination is tachypnea (> 16 breaths/min). Ventilation-perfusion scans with large perfusion defects and ventilation mismatches support the putative diagnosis of PE, but this finding can also be seen with atelectasis or other disorders of lung aeration. To confirm the diagnosis, a CT pulmonary angiography is the best tool. Conversely, a normal ventilation-perfusion scan suggests that massive PE is not the etiology of the clinical symptoms. An arterial blood gas will confirm hypoxia, but not confirm PE as the cause. A chest x-ray could be done to rule out other causes such as pulmonary edema or pneumonia, but will not make the diagnosis of PE.

1308. A 26-year-old woman presents to your office for her well-woman examination. She denies any medical problems or prior surgeries. She states that her cycles are monthly. She is sexually active and uses oral contraceptive pills for birth control. Her physical examination is normal. She reports that her 43-year-old paternal aunt was recently diagnosed with breast cancer and is undergoing treatment. She reports that her paternal grandmother died from ovarian cancer at the age of 75. She wants genetic testing (BRCA) for breast and ovarian cancer. Which of the following statements regarding genetic testing for breast and ovarian cancer is true?

- A. All female relatives of an individual with breast cancer should undergo genetic testing.
- B. Genetic testing detects all germline mutations associated with the BRCA1 and BRCA2.
- C. Most cases of breast cancer are due to germline mutations in BRCA1 and BRCA2.
- D. When possible, the genetic testing should begin with the person who has ovarian cancer or early on-set breast cancer.

Answer: D

Germline mutations in BRCA1 and BRCA2 account for the vast majority of families with hereditary breast and ovarian cancer syndrome. Approximately 10% of cases of ovarian cancer and 3% to 5% of cases of breast cancer are due to germline mutations in BRCA1 and BRCA2. In the general population, it is estimated that approximately 1 in 300 to 1 in 800 individuals carry a mutation in BRCA1 or BRCA2. For a woman with a BRCA1 mutation, the risk of ovarian cancer is 39% to 46%. For a woman with a BRCA2 mutation, the risk of ovarian cancer is 12% to 20%. The estimated lifetime risk of breast cancer with a BRCA1 or BRCA2 mutation is 65% to 74%. Evaluating a patient's risk for hereditary breast and ovarian cancer syndrome should be a routine part of obstetric and gynecologic practice. When evaluating a family history, it is important to remember that breast cancer and ovarian cancer predisposing genes can be transmitted through the father as well as the mother. If possible, genetic testing should begin with a person in the family who has ovarian cancer or early-onset breast cancer ("affected individual"). For obstetrician–gynecologists, certain clinical criteria have been developed to assist in determining which patients would benefit from a genetic risk assessment. The first group of criteria includes those patients with greater than an approximate 20% to 25% chance of having an inherited predisposition to breast cancer and ovarian cancer and for whom genetic risk assessment is recommended. The second group of criteria includes those patients with greater than an approximate 5% to 10% chance of having an inherited predisposition to breast and ovarian cancer and for whom genetic risk assessment may be helpful. Although, in most cases, an inherited predisposition to ovarian cancer is caused by mutations in BRCA1 or BRCA2, current technology does not allow identification of all mutations that must exist in these genes.

1309. Which of the following electrolyte abnormalities is associated with bulimia nervosa?

- A. Metabolic acidosis
- B. Metabolic alkalosis
- C. Respiratory acidosis
- D. Respiratory alkalosis

Answer: B

Bulimia nervosa is an eating disorder characterized by:

1. Recurrent episodes of binge eating.
2. Repetitive inappropriate compensatory behaviors to avoid weight gain (e.g excessive exercise, fasting, laxative use, and diuretic use).
3. Body shape and weight influence self-evaluation:(these patients generally maintain a normal (not low) body weight.

Electrolyte disturbances are common (metabolic alkalosis, hypochloremia, and hypokalemia caused by emesis; metabolic acidosis caused by laxative abuse).

Examination may reveal dental enamel erosion (from repeated vomiting) and oligomenorrhea.

Treatment:

1. Nutritional counseling
2. Psychotherapy (cognitive behavioral therapy)
3. SSRI, often in combination with above.

1310. A 36-year-old woman presents to your office for contraception. She has had three vaginal deliveries without complications. Her medical history is significant for hypertension, well-controlled with a diuretic, and a seizure disorder. Her last seizure was 12 years ago. Currently she does not take any antiepileptic medications. She also complains of stress-related headaches that are relieved with an over-the-counter pain medication. She denies any history of surgeries. She is divorced, smokes one pack of cigarettes per day, and has three to four alcoholic drinks per week. On examination, her vital signs include weight 90 kg, blood pressure 126/80 mm Hg, pulse 68 beats per minute, respiratory rate 16 breaths per minute, and temperature 36.4°C (97.6°F). Her examination is normal except for some lower extremity nontender varicosities. She has taken birth control pills in the past and wants to restart them because they help with her cramps. Which of the following would contradict the use of combination oral contraceptive pills in this patient?

- A. Seizure disorders
- B. Smoking in a woman over 35 years of age
- C. Tension headache
- D. Varicose veins

Answer: B

Women with absolute contraindications should not take combination oral contraceptive pills. Relative contraindications to the use of the birth control pill require clinical judgment and informed consent.

1311. Which of the following symptoms is associated with typhoid fever?

- A. Abdominal pain
- B. Confusion
- C. Pruritus.
- D. Shortness of breath

Answer: A

1. Typhoid fever, also known as enteric fever, is a potentially fatal multisystemic illness caused primarily by *Salmonella enterica*, subspecies *enterica* serovar *typhi*.
2. The incubation period (usually 8 to 14 days) is inversely related to the number of organisms ingested.
3. The protean manifestations of typhoid fever make this disease a true diagnostic challenge. The classic presentation includes fever, malaise, diffuse abdominal pain, and constipation.
4. Untreated, typhoid fever is a grueling illness that may progress to delirium, obtundation, intestinal hemorrhage, bowel perforation, and death within 1 month of onset. Survivors may be left with long-term or permanent neuropsychiatric complications